

## GRIER MAXIMILLIAN JONES, PHD

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|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|  | <a href="mailto:grier.jones@utoronto.ca">grier.jones@utoronto.ca</a>                                      |
|  | <a href="https://grierjones.com">https://grierjones.com</a>                                               |
|  | <a href="https://github.com/ChemRacer">https://github.com/ChemRacer</a>                                   |
|  | <a href="https://gitlab.com/ChemRacer">https://gitlab.com/ChemRacer</a>                                   |
|  | <a href="https://www.linkedin.com/in/grier-jones-654970159">www.linkedin.com/in/grier-jones-654970159</a> |

### RESEARCH INTERESTS

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|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chemistry</b>        | Inorganic, physical, computational and theoretical chemistry                                                                                     |
| <b>Mathematics</b>      | Topological data analysis, graph theory, ordinary and partial differential equations, optimization, dynamical systems, and mathematical modeling |
| <b>Computer Science</b> | High performance computing, quantum computing, cloud computing, machine learning, acceleration hardware (GPUs, TPUs, etc.)                       |

### EDUCATION

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| Feb. 1, 2024-Present       | <b>Postdoctoral Fellow</b><br>The Edward S. Rogers Sr. Department of Electrical Engineering and Computer Engineering<br>University of Toronto, Toronto, ON, CA<br>Department of Chemical and Physical Sciences<br>University of Toronto Mississauga, Mississauga, ON, CA<br>Quantum Software Consortium, CA<br>Advisors: Dr. H.-A. Jacobsen, Dr. U. Fekl |
| Aug. 1, 2018-Dec. 16, 2023 | <b>PhD in Physical Chemistry</b><br><b>Interdisciplinary Graduate Minor in Computational Sciences (IGMCS)</b><br>Department of Chemistry<br>University of Tennessee, Knoxville, TN, USA<br>Advisor: Dr. K. D. Vogiatzis                                                                                                                                  |
| Sept. 2014-May 12, 2018    | <b>BS in Chemistry (American Chemical Society Certified)</b><br><b>Minor in Mathematics</b><br>Department of Chemistry and Biochemistry<br>College of Charleston, Charleston, SC, USA<br>Advisors: Dr. P. Riggs-Gelasco, Dr. W. G. Mitchener, Dr. G. A. Guirgis                                                                                          |

### CONTINUING EDUCATION AND PROFESSIONAL DEVELOPEMENT

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|----------------------|---------------------------------------------------------------------------------------------------------------------------|
| May 2024-June 2025   | Prospective Professors in Training Program at the University of Toronto                                                   |
| July 15-26, 2024     | 2024 Qiskit Global Summer School: The Path to Utility<br>Additional Certificates: Badge of Quantum Excellence             |
| June 22/27-29, 2022  | San Diego Supercomputer Center Cyberinfrastructure-Enabled Machine Learning Summer Institute                              |
| September 4, 2019    | OMSC Workshop at EUCO-CTC 2019, Perugia, Italy                                                                            |
| December 10-13, 2018 | 34 <sup>th</sup> Annual Winter School in Theoretical Chemistry 2018: Machine Learning in Theoretical Chemistry (Helsinki) |

### WORK EXPERIENCE

|            |                                                                                                                                                                                                                                                                                                                                      |
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| Feb. 2024- | <b>Postdoctoral Fellow at the University of Toronto, St. George and Mississauga Campuses, ON, CA</b> <ul style="list-style-type: none"><li>Experience developing quantum machine learning and distributed quantum algorithms using common Python quantum computing packages, such as Qiskit and PennyLane, on IBM hardware</li></ul> |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## **GRIER MAXIMILLIAN JONES, PHD**

- Experience running quantum chemical calculations on high performance computing platforms using Gaussian
- Decommissioned an outdated server and assisted in the construction and commissioning of a new group cloud server
- Worked in a highly collaborative environment, which includes the mentorship of undergraduate and master's students
- Participated as a program committee member to peer-review papers, schedule talks, and run the discussion session for a conference workshop on distributed quantum computing
- Assisted in writing proposals and grants, along with participating in group recruitment activities, such as interviewing potential undergraduate candidates
- Published two conference workshop papers, one peer-review journal article, with other manuscripts in preparation to be submitted to peer-reviewed journals
- Helped organize a workshop on distributed quantum computing at IEEE Quantum Week 2024, 2025, and 2026
- Lead a collaborative project with an industrial partner
- Represented the Quantum Software Consortium in meetings with industry partners and collaborators

Jan. 2019-Jan. 2024

### **Graduate Research Assistant at the University of Tennessee, Knoxville, TN**

- Worked on the development of data-driven quantum chemistry approaches using common Python machine learning packages such as scikit-learn, PyTorch, and Deep Graph Library
- Experience running quantum chemical calculations on high performance computing platforms using OpenMolcas, Psi4/Psi4Numpy, TURBOMOLE, and ORCA
- Successful utilization of tools based on topological data analysis, including persistent homology, for chemical applications related to electronic structure theory, catalysis, and polymer dynamics
- Worked in a highly collaborative environment and mentored six undergraduate researchers on various research projects
- Published four first author peer-reviewed journal articles, along with a book and book chapter with code examples available in public repositories
- Received recognition via national and departmental awards, along with regional, national, and international presentations

Aug. 2018-Dec. 2021

### **Graduate Teaching Assistant at the University of Tennessee, Knoxville, TN**

- Responsibilities included grading exams and assignments, creating assignments, tutorial center hours, and teaching laboratory and discussion sessions
- During COVID-19 this introduced new challenges and responsibilities such as online and hybrid teaching, writing exam questions, and online proctoring
- Gained experience with course planning by helping pioneer the first course on machine learning in chemistry in the Department of Chemistry

May 2015-May 2018

### **Undergraduate Research Assistant at the College of Charleston, Charleston, SC**

- Developed machine learning models for image generating tasks related to hallucinations and mental imagery using Mathematica
- Implemented mathematical models using Mathematica for the study of chaos in parametric resonance optical/acoustical diffraction experiments
- Received two poster awards for the best poster presentations from the Department of Mathematics
- Worked with collaborators at the Medical University of South Carolina and in the Department of Physics at the College of Charleston
- Performed optimization and frequency quantum chemical calculations, in the Department of Chemistry and Biochemistry, using Gaussian

## GRIER MAXIMILLIAN JONES, PHD

Summer 2012

**National Park Service Youth Corp member, Kings Mountain National Military Park, Blacksburg, SC**

- Maintained trails, built bridges in remote locations, assisted in efforts to maintain fire lines for seasonal controlled burns, and performed routine maintenance on park equipment

### TEACHING EXPERIENCE

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|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| March 13 & 16, 2026                          | Quantum Information Processing: Algorithms & Software (ECE484; guest lecturer)<br>University of Toronto, St. George             |
| Fall 2025-Winter 2026                        | Modular Quantum Computing Algorithms for Quantum Chemistry (PHY479Y)<br>University of Toronto, St. George                       |
| Summer 2025                                  | Optimizing Quantum Chemistry Calculations using Quantum Machine Learning Methods (PHY479Y)<br>University of Toronto, St. George |
| Fall 2024                                    | Quantum Machine Learning Architecture Searches for Chemical Application (CSC495H1)<br>University of Toronto, St. George         |
| Fall 2021                                    | Special Topics in Chemistry II: Machine Learning for Chemical Applications (CHEM 420)<br>University of Tennessee, Knoxville     |
| Spring 2021                                  | Foundations of Physical Chemistry (CHEM 370)<br>University of Tennessee, Knoxville                                              |
| Spring 2020                                  | General Chemistry II (CHEM 130)<br>University of Tennessee, Knoxville                                                           |
| Fall 2018, Spring 2019, Fall 2019, Fall 2020 | General Chemistry I (CHEM 120)<br>University of Tennessee, Knoxville                                                            |

### PEER-REVIEWED ARTICLES

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Trainable Pulse Encoder and Progressive Circuit Growth for Quantum Machine Learning, *In Preparation*.

T. Trenty, **G. M. Jones**, V. K. Prasad, H.-A. Jacobsen

Quantum Machine Learning for Transition Metal Catalysis: Accelerating C-H Activation Pathway Design, *In Preparation*.

**G. M. Jones**, C. Liu, I. González Valenzuela, U. Fekl, H.-A. Jacobsen

Large-scale Electronic Structure Calculations Utilizing Distributed Quantum-centric Supercomputing, *In Preparation*.

**G. M. Jones**, A. K. Rao, J. R. Moore, I. Shezad, S. J. Wagner, H.-A. Jacobsen

Enhancing Molecular Transferability for Data-Driven Coupled-Cluster using Quantum Kernel Learning, *Submitted*.

G. Holmen, T. Trenty, **G. M. Jones**, V. K. Prasad

Probabilistic Design of Parametrized Quantum Circuits through Local Gate Modifications, *Submitted*.

**G. M. Jones**, A. Newatia, A. Lao, A. K. Rao, V. K. Prasad, H.-A. Jacobsen

Quantifying Teleportation Overhead in Distributed Unitary Coupled-Cluster Ansätze, *Accepted*.

**G. M. Jones**, H.T. Shafi, Z. Wang, T. Trenty, Z. Verneq, H.-A. Jacobsen

## GRIER MAXIMILLIAN JONES, PHD

Analyzing Initialization Strategies for the Local Unitary Cluster Jastrow Ansatz within the Quantum-Centric Supercomputing Framework, *J. Chem. Theory Comput.*, 2026.

**G. M. Jones**, M.J. Amoussou, M. O. Leach, H.-A. Jacobsen

Parametrized Quantum Circuit Learning for Quantum Chemical Applications, *J. Chem. Inf. Model.*, **2026**, 2026, 66, 6, 3103–3116.

**G. M. Jones**, V. K. Prasad, U. Fekl, H.-A. Jacobsen

Capturing Electron Correlation with Machine Learning through a Data-Driven CASPT2 Framework, *J. Chem. Theory Comput.*, 2025, 21, 21, 10879–10892.

**G. M. Jones**, K. D. Vogiatzis

Analyzing Common Electronic Structure Theory Algorithms for Distributed Quantum Computing, In *2025 IEEE International Conference on Quantum Computing and Engineering (QCE)*, 2025, 368-373.

**G. M. Jones**, H.-A. Jacobsen

In Silico Screening of CO<sub>2</sub>-Dipeptide Interactions for Bioinspired Carbon Capture, *ChemPhysChem*, 2024, e202400498

A. G. Sylvanus, **G. M. Jones**, R. Custelcean, K. D. Vogiatzis

Distributed Quantum Computing for Chemical Applications, In *2024 IEEE International Conference on Quantum Computing and Engineering (QCE)*, 2024, Vol. 2, 155-160.

**G. M. Jones**, H.-A. Jacobsen

Data-Driven Refinement of Electronic Energies from Two-Electron Reduced-Density-Matrix Theory. *J. Phys. Chem. Lett.*, 2023, 14, 28, 6377-6385.

**G. M. Jones**, R. R. Li, A. E. DePrince III, K. D. Vogiatzis

Data-Driven Ligand Field Exploration of Fe(IV)-oxo Sites for C-H Activation. *Inorg. Chem. Front.*, 2023, 10, 1062-1075. (Featured on front cover)

**G. M. Jones**, B. A. Smith, J. K. Kirkland, K. D. Vogiatzis

## BOOKS

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*Molecular Representations for Machine Learning*, ACS In Focus Series, 2023.

**G. M. Jones**, B. Story, V. Maroulas, K. D. Vogiatzis

## BOOK CHAPTERS

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*Data-driven acceleration of coupled-cluster and perturbation theory methods*, in: “Quantum Chemistry in the Age of Machine Learning”, Editor: Pavlo Dral, Elsevier, 2023. 509-529.

**G. M. Jones**, P. D. V. S. Pathirage, K. D. Vogiatzis

## JOURNALS REVIEWED

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|             |                                                                               |
|-------------|-------------------------------------------------------------------------------|
| Summer 2026 | 2026 IEEE International Conference on Quantum Computing and Engineering (QCE) |
| Summer 2025 | IEEE Transactions on Networking                                               |
| Summer 2025 | 2025 IEEE International Conference on Quantum Computing and Engineering (QCE) |
| Summer 2024 | 2024 IEEE International Conference on Quantum Computing and Engineering (QCE) |

## RESEARCH PRESENTATIONS

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### Talks

|                    |                                                                                                                                                                                                                                                             |
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| September 17, 2026 | WKS740—Distributed Quantum Computing: Alliances, Sandboxes & Emerging Opportunities at the IEEE International Conference on Quantum Computing and Engineering (QCE), Toronto, Ontario, CA: <i>Quantifying Teleportation Overhead in Distributed Unitary</i> |
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**GRIER MAXIMILLIAN JONES, PHD**

*Coupled-Cluster Ansätze*

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| May 28, 2026       | IBM Materials Science Quantum Working Group Workshop, San Sebastián, ES: <i>Quantum Machine Learning for Chemical Applications</i> <b>(Invited)</b>                                                                                                                                             |
| May 26, 2026       | LaBRI at the University of Bordeaux, Bordeaux, FR: <i>Quantum Machine learning and Distributed quantum computing for chemical applications</i> <b>(Invited)</b>                                                                                                                                 |
| February 20, 2026  | Quantum Days 2026, Victoria, CA: <i>Quantum Consortia Presentation – QSC: Unlocking Distributed Quantum Computing for Canada</i> <b>(Invited)</b>                                                                                                                                               |
| February 18, 2026  | Quantum Days 2026, Victoria, CA: <i>Panel Session – Distributed Quantum Computing: Toward Error-Corrected, Scalable Quantum Systems</i> <b>(Invited)</b>                                                                                                                                        |
| November 19, 2025  | 2025 Maryland Delegation to University of Toronto and CQIQC <b>(Invited)</b>                                                                                                                                                                                                                    |
| October 21, 2025   | Ontario Public Service Share Your Science 2025: Uncertainty, Imagination, Impact: Science at the Edge of Change: <i>Panel Discussion on Quantum Science</i> <b>(Invited)</b>                                                                                                                    |
| October 21, 2025   | Ontario Public Service Share Your Science 2025: Uncertainty, Imagination, Impact: Science at the Edge of Change: <i>The Quantum Software Consortium of Canada: Exploring Distributed Quantum Solutions for Canada</i> <b>(Invited)</b>                                                          |
| September 4, 2025  | WKS38—Distributed Quantum Computing: Applications, Challenges and Opportunities at the IEEE International Conference on Quantum Computing and Engineering (QCE), Albuquerque, New Mexico, USA: <i>Analyzing Common Electronic Structure Theory Algorithms for Distributed Quantum Computing</i> |
| July 11, 2025      | Quantum Software Consortium 2025 Annual General Meeting: <i>Pushing quantum chemistry beyond classical limitations using distributed quantum computing</i>                                                                                                                                      |
| June 11, 2025      | University of Tennessee, Chattanooga, USA: <i>Pushing quantum chemistry beyond classical limitations using distributed quantum computing</i> <b>(Invited)</b>                                                                                                                                   |
| May 23, 2025       | Two Small Fish Ventures: <i>Crash Course on Quantum Computing</i> <b>(Invited)</b>                                                                                                                                                                                                              |
| September 29, 2024 | Q-SITE, Toronto, CA: <i>Distributed Quantum Computing for Chemical Applications</i> <b>(Invited)</b>                                                                                                                                                                                            |
| September 18, 2024 | WKS19—Distributed Quantum Computing Algorithms, Networks, Software, and Applications at the IEEE International Conference on Quantum Computing and Engineering (QCE), Montreal, CA: <i>Distributed Quantum Computing for Chemical Applications</i>                                              |
| August 17, 2023    | Machine Learning in Chemistry session at the American Chemical Society, San Francisco, USA: <i>Exploring the Topology of Electron Correlation with Graph Neural Networks</i>                                                                                                                    |
| May 12, 2023       | Southeastern Theoretical Chemistry Association Meeting (SETCA) 2022, South Carolina, USA: <i>Exploring the Topology of Electron Correlation with Graph Neural Networks</i>                                                                                                                      |
| September 4, 2019  | Open Molecular Science Cloud (OMSC) Workshop at EUCO-CTC 2019, Perugia, Italy: <i>Data-driven Quantum Chemistry with Cloud Computing</i>                                                                                                                                                        |

## GRIER MAXIMILLIAN JONES, PHD

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| November 17, 2017  | College of Charleston Mathematics Colloquium: <i>Simulating an Acoustical Experiment</i>                                                                                                                                          |
| November 4, 2016   | College of Charleston Mathematics Colloquium: <i>A Mathematical Model of Dynamic Vision</i>                                                                                                                                       |
| September 25, 2015 | College of Charleston Mathematics Colloquium: <i>Modeling Mental Imagery</i>                                                                                                                                                      |
| <b>Posters</b>     |                                                                                                                                                                                                                                   |
| August 18, 2026    | 11th International Conference on Quantum Information and Quantum Control (CQIQC-XI), The Fields Institute, Toronto, CA: <i>Large-Scale Electronic Structure Calculations Utilizing Distributed Quantum-Centric Supercomputing</i> |
| June 30, 2026      | Quantum Software Consortium 2026 Annual General Meeting, Toronto, CA: <i>Exploring Quantum Machine Learning for Transition Metal Catalysis: Accelerating C–H Activation Pathway Design</i>                                        |
| June 29, 2026      | Quantum Software Consortium 2026 Annual General Meeting, Toronto, CA: <i>Large-Scale Electronic Structure Calculations Utilizing Distributed Quantum-Centric Supercomputing</i>                                                   |
| July 11, 2025      | Quantum Software Consortium 2025 Annual General Meeting, Toronto, CA: <i>Understanding Parameterized Quantum Circuit Learning for Chemical Applications</i>                                                                       |
| February 19, 2025  | Quantum Days 2025, Toronto, CA: <i>A Combinatorial Search of Parameterized Quantum Circuit Learning for Chemical Applications</i>                                                                                                 |
| October 1, 2024    | Data Sciences Institute Research Day 2024, the Data Sciences Institute, Toronto, CA: <i>Near-term Quantum Algorithms and Error Correction for Molecular Property Predictions</i>                                                  |
| August 28, 2024    | 10th International Conference on Quantum Information and Quantum Control (CQIQC-X), The Fields Institute, Toronto, CA: <i>Near-term Quantum Algorithms and Error Correction for Molecular Property Predictions</i>                |
| March 28, 2023     | NVIDIA GPU Award session at the American Chemical Society, Indianapolis, USA: <i>Exploring the Topology of Electronic correlation with Graph Neural Networks</i>                                                                  |
| May 19, 2022       | Southeastern Theoretical Chemistry Association Meeting (SETCA) 2022, Georgia Tech, USA: <i>Data-Driven Exploration of Fe(IV)-oxo Sites for C-H activation</i>                                                                     |
| November 13, 2021  | Symposium on Machine Learning in Quantum Chemistry (SMLQC-2021), online, Xiamen, China: <i>Data-Driven Accelerated Complete Active Space Second-Order Perturbation Theory</i>                                                     |
| April 12, 2018     | College of Charleston School of Science and Mathematics 30 <sup>th</sup> Annual Poster Session: <i>Simulating an Acoustical Experiment</i>                                                                                        |
| April 20, 2017     | College of Charleston School of Science and Mathematics 29 <sup>th</sup> Annual Poster Session: <i>A Mathematical Model of Dynamic Vision</i>                                                                                     |
| August 22, 2016    | 2016 Celebration of Scholars: Exposition of Faculty and Student Research, Scholarship, and Creativity: <i>A Mathematical Model of Dynamic Vision</i>                                                                              |
| April 14, 2016     | College of Charleston School of Science and Mathematics 28 <sup>th</sup> Annual Poster Session: <i>Modeling Mental Imagery</i>                                                                                                    |
| February 5, 2016   | Medical University of South Carolina Neuroscience Institute Neuropalooza: <i>Modeling Mental Imagery</i>                                                                                                                          |

## GRIER MAXIMILLIAN JONES, PHD

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| August 28, 2015 | MUSC Neuroscience Institute Meet & Greet Reception: <i>Modeling Mental Imagery</i>                                                    |
| August 24, 2015 | 2015 Celebration of Scholars: Exposition of Faculty and Student Research, Scholarship, and Creativity: <i>Modeling Mental Imagery</i> |

### AWARDS AND HONORS

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| April 1, 2024     | Volunteer of Distinction, University of Tennessee                                                                                                                                                                                     |
| May 4, 2023       | Gleb Mamantov Graduate Chemistry Scholar, Department of Chemistry, University of Tennessee                                                                                                                                            |
| March 28, 2023    | NVIDIA GPU Award for Best GPU Poster, COMP Division of the American Chemical Society                                                                                                                                                  |
| February 10, 2023 | Graduate Student Senate Travel Award, University of Tennessee                                                                                                                                                                         |
| September 2019    | OMSC Workshop Travel Grant, Molecular Science Software Institute, NSF                                                                                                                                                                 |
| April 12, 2018    | Research Poster Session Award of Merit/Best Department of Mathematics Research Poster, College of Charleston School of Science and Mathematics 30 <sup>th</sup> Annual Poster Session: <i>Simulating an Acoustical Experiment</i>     |
| April 20, 2017    | Research Poster Session Award of Merit/ Best Department of Mathematics Research Poster, College of Charleston School of Science and Mathematics 29 <sup>th</sup> Annual Poster Session: <i>A Mathematical Model of Dynamic Vision</i> |

### PROFESSIONAL MEMBERSHIPS

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|-------------|-------------------------------------------------------------------------------------------------------------------------|
| 2026-       | IBM Quantum Materials Science Quantum Working Group                                                                     |
| 2025-2026   | Institute of Electrical and Electronics Engineers (IEEE)                                                                |
| 2019-2026   | American Chemical Society (ACS)                                                                                         |
| 2016-2018   | College of Charleston Math Club                                                                                         |
| 2015-2018   | Alpha Chi Sigma, Gamma Delta Chapter                                                                                    |
| Summer 2015 | College of Charleston and Medical University of South Carolina Machine Learning and Medical Image Analysis Journal Club |
| Fall 2014   | South Carolina Student Legislature                                                                                      |

### MENTORING

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|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Summer 2026             | Zixuan Wang<br>University of Toronto, St. George Campus/The University of Hong Kong<br>Awards: 2026 MITACS Globalink Research Internship            |
| Summer 2026             | Muhammad Hassan Tariq Shafi<br>University of Toronto, St. George Campus/University of Aberdeen<br>Awards: 2026 MITACS Globalink Research Internship |
| Summer 2025-Summer 2026 | Maforikan Amoussou<br>University of Toronto, St. George Campus                                                                                      |
| Summer 2025             | Maximilian Leach<br>University of Toronto, St. George Campus/University of Exeter<br>Awards: 2025 MITACS Globalink Research Internship              |

## GRIER MAXIMILLIAN JONES, PHD

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| Summer 2025              | Ismael González Valenzuela<br>University of Toronto, St. George Campus/National Autonomous University of Mexico<br>Awards: 2025 MITACS Globalink Research Internship |
| Summer 2025-Winter 2026  | Jenny Moore<br>University of Toronto, St. George Campus<br>Awards: CQIQC Undergraduate Summer Research Program 2025                                                  |
| Summer 2025              | Liu Chen<br>University of Toronto, St. George Campus/The Hong Kong Polytechnic University<br>Awards: 2025 MITACS Globalink Research Internship                       |
| Fall 2024-Winter 2026    | Adi Rao<br>University of Toronto, St. George Campus                                                                                                                  |
| Fall 2024-Summer 2025    | Aviraj Newatia<br>University of Toronto, St. George Campus                                                                                                           |
| Summer 2024              | Alexander Lao<br>University of Toronto, St. George Campus<br>Awards: Engineering Science Research Opportunities Program (ESROP), University of Toronto               |
| Summer 2024-Fall 2024    | Logan Blaskie<br>University of Toronto, Mississauga Campus<br>Awards: 2024 University of Toronto Excellence Award (UTEA), University of Toronto                      |
| Summer 2024-Fall 2024    | Andrew Jamsa<br>University of Toronto, Mississauga Campus                                                                                                            |
| Summer 2024              | Kaalkidan Sahele<br>University of Toronto, St. George Campus/Durham University<br>Awards: 2024 MITACS Globalink Research Internship                                  |
| Summer 2024              | Thomas Trenty<br>University of Toronto, St. George Campus/Bordeaux Institute of Technology<br>Awards: 2024 MITACS Globalink Research Internship<br>Master's Student  |
| Fall 2023-January 2024   | Amarachi G. Sylvanus<br>University of Tennessee, Knoxville<br>Graduate Student                                                                                       |
| Fall 2023-January 2024   | Thomas Jones<br>University of Tennessee, Knoxville<br>Graduate Student                                                                                               |
| Fall 2019-January 2024   | P. D. Varuna S. Pathirage<br>University of Tennessee, Knoxville<br>Graduate Student                                                                                  |
| Summer 2023-January 2024 | Sean Liner<br>University of Tennessee, Knoxville                                                                                                                     |
| Spring 2022-January 2024 | Jacob Steele<br>University of Tennessee, Knoxville                                                                                                                   |

## GRIER MAXIMILLIAN JONES, PHD

Awards: 2022 and 2023 Advanced Undergraduate Research Activity (AURA), University of Tennessee

Summer 2022-Spring 2023      Justin Phillips  
University of Tennessee, Knoxville

Spring 2022-Fall 2022      Carmen Brown  
University of Tennessee, Knoxville

Spring 2022      Zoe Edge  
University of Tennessee, Knoxville

Summer 2022      Catarus Hawkins  
University of Tennessee, Knoxville/Philander Smith College  
Awards: UT-Oak Ridge Innovation Institute Student Mentoring and Research Training (SMarT) program

### SERVICE

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Winter-Fall 2026      Technical Program Committee for the Quantum Machine Learning at 2026 IEEE International Conference on Quantum Computing and Engineering (QCE), Toronto, Ontario, CA

Winter-Fall 2026      Program committee member of the *Distributed Quantum Computing: Applications, Challenges And Opportunities* at 2026 IEEE International Conference on Quantum Computing and Engineering (QCE), Toronto, Ontario, CA

Winter-Fall 2026      Organizing committee member for 2026 IEEE International Conference on Quantum Computing and Engineering (QCE), Toronto, Ontario, CA

Winter-Fall 2026      Student Volunteer Co-Chair for 2026 IEEE International Conference on Quantum Computing and Engineering (QCE), Toronto, Ontario, CA

September 4, 2025      Program committee member of the *Distributed Quantum Computing: Applications, Challenges And Opportunities* at 2025 IEEE International Conference on Quantum Computing and Engineering (QCE), Albuquerque, New Mexico, USA

September 18, 2024      Volunteer organizer for *Distributed Quantum Computing: Algorithms, Networks, Software, and Applications* at 2024 IEEE International Conference on Quantum Computing and Engineering (QCE), Montreal, Quebec, CA

March 3-4, 2023      Research Open House Host at the University of Tennessee, Knoxville

May 16-18, 2019      Volunteer at the 2019 Southeastern Theoretical Chemistry Association (SETCA) at the University of Tennessee, Knoxville

Fall 2017-Spring 2018      Co-Social Chair Executive Board Member, Alpha Chi Sigma, Gamma Delta Chapter

March 10, 2018      Alpha Chi Sigma Dance Volunteer at the 2018 MUSC Miracle Network Cougarthon

February 9, 2018      Alpha Chi Sigma Donut Fundraiser Volunteer for the 2018 MUSC Miracle Network Cougarthon

October 19, 2017      Hanahan Elementary School Family Science Night Magic Show

August 2017      Higdon Student Leadership Center Cougar Excursion Peer Facilitator

Fall 2016-Spring 2017      Executive Board Member, Alpha Chi Sigma, Gamma Delta Chapter

## GRIER MAXIMILLIAN JONES, PHD

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| March 25, 2017     | Water Mission International 2017 Charleston Walk for Water                                                                         |
| March 2017         | College of Charleston Accepted Students Weekend volunteer                                                                          |
| February 18, 2017  | Alpha Chi Sigma chemistry magic show volunteer at the 2017 MUSC Miracle Network Dance Marathon                                     |
| September 10, 2016 | Alpha Chi Sigma chemistry magic show volunteer at the Boeing Company annual luncheon held at North Charleston Riverfront Park      |
| August 2016        | Higdon Student Leadership Center Cougar Excursion Peer Facilitator                                                                 |
| March 2016         | College of Charleston Accepted Students Weekend volunteer                                                                          |
| February 27, 2016  | Alpha Chi Sigma chemistry magic show volunteer at the 2016 MUSC Miracle Network Dance Marathon                                     |
| February 27, 2016  | College of Charleston Mathematics Department Math Meet volunteer                                                                   |
| October 23, 2015   | Alpha Chi Sigma chemistry magic show volunteer at local homeschool association STEM fair, Calvary Lutheran Church, West Ashley, SC |
| October 1, 2015    | 2015 Preservation Society of Charleston Fall Tour of Homes Docent for 8 Legare Street, Charleston, SC                              |
| August 2015        | Higdon Student Leadership Center Cougar Excursion Peer Facilitator                                                                 |
| April 3, 2015      | Alpha Chi Sigma fundraiser volunteer for the Shifa Clinic Child Hunger Prevention Program                                          |
| March 2015         | College of Charleston Accepted Students Weekend volunteer                                                                          |
| February 18, 2015  | Alpha Chi Sigma chemistry magic show volunteer at the 2015 MUSC Miracle Network Dance Marathon                                     |
| Fall 2014          | South Carolina Student Legislature Semi-Annual State House Session Delegate                                                        |
| August 2014        | Higdon Student Leadership Center Cougar Excursion participant                                                                      |

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### ADDITIONAL SKILLS

|                                         |                                                                                                                                                                             |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Programming Languages</b>            | Python, FORTRAN, Mathematica, Bash and Zsh                                                                                                                                  |
| <b>Software and APIs</b>                | Git, CMake, Make                                                                                                                                                            |
| <b>Professional Tools</b>               | LaTeX, ChemDraw, Microsoft Office Suite, VIM/VI                                                                                                                             |
| <b>Computational Chemistry Software</b> | Gaussian, MOLCAS/OpenMOLCAS, ORCA, TURBOMOLE, PySCF, and Psi4/Psi4Numpy                                                                                                     |
| <b>High Performance Computing</b>       | Experience using high-performance computing (HPC) environments with schedulers such as Portable Batch System (PBS) and Simple Linux Utility for Resource Management (SLURM) |
| <b>Operating Systems</b>                | Mac, Linux (Debian, Fedora, Ubuntu), Microsoft (includes setting up the Ubuntu Linux subsystem for Windows)                                                                 |
| <b>Professional Conduct</b>             | Completed Collaborative Institutional Training Initiative Program Physical Science                                                                                          |

## **GRIER MAXIMILLIAN JONES, PHD**

Responsible Conduct of Research Course

### **Language**

Basic knowledge in French.

### **Administration**

Former manager of the lab Slack, OpenMOLCAS build, and system administrator for the network-attached storage (QNAP model type).