

Trung Vu

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Citizenship: Vietnam

Technical skills

Programming and markdown languages

Proficient in: Python, MATLAB, R, HTML, CSS, \LaTeX , Mathematica
Familiar with: C++, Julia

Softwares and packages

Proficient in: Sage, Macaulay2, Qiskit (for quantum computing)
Familiar with: Tensor Flow, Arduino package from MATLAB, Pupil Labs (eye-tracking devices software)

Languages

English (fluent), Vietnamese (fluent)

Education

- 2020 – Present **University of Illinois at Urbana-Champaign** – Urbana, Illinois
PhD in Mathematics
Advisors: Professor Philippe Di Francesco and Professor Rinat Kedem
- 2020 – 2021 **University of Illinois at Urbana-Champaign** – Urbana, Illinois
M.Sc in Mathematics
Advisors: Professor Philippe Di Francesco and Professor Rinat Kedem
- 2016 – 2020 **St. Olaf College** – Northfield, Minnesota
BA in Mathematics with Concentration (minor) in Neuroscience

Honors and scholarships

- 2023 University of Illinois at Urbana-Champaign Research Board Funding Recipient
- 2022-2023 Bourgin Departmental Fellowship - University of Illinois at Urbana-Champaign
- Summer 2022 R. Ranga and Shantha Rao Scholarships - University of Illinois at Urbana-Champaign
- 2019 [Steen Fellowship](#) - St. Olaf College
\$4,170 to fund independent summer research project

Publications

- 2018 **Matrix Square Roots of Polynomials**
Kosmas Diveris, Trung Vu
Pi Mu Epsilon Journal.
- 2022 **T-system with Slanted Initial Data**
Philippe Di Francesco, Trung Vu
[in preparation].

Teaching

At University of Illinois at Urbana - Champaign

- Fall 2023 Teaching Assistant for Calculus 2

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| Spring 2022 | Teaching Assistant for Calculus 2, Ranked as Excellent by Students |
| Fall 2021 | Teaching Assistant for Calculus 1, Ranked as Excellent by Students |
| Spring 2021 | Teaching Assistant for Calculus 2, Ranked as Excellent by Students |
| <i>At. St. Olaf College</i> | |
| Spring 2020 | Teaching assistant for Real Analysis 1 and Combinatorics |
| Fall 2019 | Supplemental Instructor for Linear Algebra |
| Spring 2019 | Supplemental Instructor for Linear Algebra |
| Spring 2018 | Supplemental Instructor for Principles of Statistics |
| Fall 2017 | Academic Tutor for Calculus 1, Calculus 2 and Linear Algebra |
| Fall 2017 | Teaching Assistant for General Chemistry |

Undergraduate Research Experience

Joint work at St. Olaf College and University of Illinois at Urbana - Champaign via Steen Fellowship

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| Summer 2019 | Application of Algebraic Geometry and Geometric Invariant Theory on Functional Neuroimaging Mentor: Graduate Student Megan Finnegan <i>At. St. Olaf College</i> |
| Summer 2018 | Geographic Variation in Temporal Pattern Recognition in The Acoustic Parasitoid Fly <i>Ormia ochracea</i> Mentor: Professor Norman Lee |
| Fall 2017 – Spring 2020 | Free Field Sound Localization Using the Sound Localization Arc Mentor: Professor Jeremy Loebach |
| Fall 2017 – Spring 2019 | Pupillometry and Auditory Cognition in Normal Hearing Listeners, Hearing Impaired Individuals and Cochlear Implant Users Mentor: Professor Jeremy Loebach |
| Summer 2017 | Matrix Square Roots of Polynomial Project Mentor: Professor Kosmas Diveris. |

Professional Memberships

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| 2018 – Present | Pi Mu Epsilon Mathematical Honor Society |
| 2018 – Present | Mathematical Association of America |