Cruz TianGang Fuller

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Professional Summary

Motivated Mathematics major with a strong foundation in computer science. Experienced in academic collaboration, peer tutoring, and cultural translation, with a proven ability to thrive in fast-paced environments. Passionate about mathematical modeling, educational equity, and leveraging data-driven solutions for real-world problems. A U.S citizen who is bilingual in English and Chinese, with cross-cultural experience studying in China and supporting international students. Strong communication, analytical, and teamwork skills developed through both academic and professional roles. Seeking opportunities to apply mathematical and cross-cultural competencies in education, research, and data analysis.

Education

Bachelor of Science in Mathematics
Troy University, Troy, AL
Minor: Computer Science
GPA: 4.0
Expected Graduation: May 2026

Research Experience

REU in Applied Mathematics – Brownian Motion Simulation and Heat Equation Modeling
Florida State University, Tallahassee, FL | May 2025 – July 2025
Supervisor: Dr. Arash Fahim

- Extended the Walk-on-Spheres Monte Carlo method to the heat transfer applications by modeling Brownian motion
- Derived analytical Cumulative Distribution Functions (CDFs) for exit time and location using Fourier–Bessel expansions
- Implemented inverse transform sampling to simulate Brownian paths simulation applications
- Applied a tailored Partial Differential Equations (PDEs) approach to financial applications and optimization

- Presented research findings at the FSU REU Symposium; strengthened skills in Python, numerical analysis, and stochastic modeling

Honors and Awards

- Chancellor's List, Troy University (4.0 GPA): Fall 2022 through present

- Pi Mu Epsilon Honor Society (inducted 2025) - Inducted for excellence in mathematics

- Mortar Board Honor Society (Inducted 2025) - Selected for outstanding scholarship, leadership, and service (top seniors nationwide)

Research Interests

- Applied Mathematics
- Numerical Method
- Computer Algorithms and Data Structures
- Computer modeling of complex functions and systems

Languages

- Chinese – Native/Fluent
- English – Fluent

Academic and Campus Involvement

Math Club, Troy University — Member (2022–Present)
- Participated in professional development workshops
- Tutored peers in complex mathematical applications
- Collaborated with mathematicians to build a network of professional resources

International Student Cultural Organization (ISCO), Troy University — Member (Fall 2022)
- Served as translator and cultural liaison
- Assisted international students with integration into American culture
- Provided transportation support

Study Abroad in China, Troy University — Participant & Translator (Nov–Dec 2024)
- Attended classes at Ludong University, Yantai, China
- Assisted faculty and students with translation
- Explored technological and cultural developments in China

Employment History

REU — Florida State University, Tallahassee, FL (Summer 2025)
- Conducted undergraduate research under the mentorship of faculty in applied mathematics
- Gained foundational exposure to stochastic processes, partial differential equations, and numerical methods through hands-on research and lectures

Cook — Waffle House, Troy, AL (Aug 2023– Present)
- Prepared meals in accordance with safety and quantity standards
- Collaborated with team members in a fast-paced environment

Technical Skills

- Programming Languages: Python, Java (intermediate level), C++
- Mathematical Software: MATLAB, LaTeX
- Microsoft Office: Word, Excel, PowerPoint

References

Dr. Ken Roblee
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Dr. Arash Fahim
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