

Serhii Kuzmin

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Education

University of Scranton, Scranton, PA

May 2026

B.S. in Computer Science and Mathematical Sciences

GPA: 3.86

- Deans List: 8/8 semesters
- Honors Society: Upsilon Pi Epsilon, Pi Mu Epsilon

Technical Skills

Languages: Python, Java, Kotlin, C, JavaScript, TypeScript, HTML/CSS

Frameworks & Libraries: NumPy, SciPy, Qiskit, React.js, Next.js, Node.js

Tools & Platforms: Git, Docker, Unix/Linux, AWS, GitHub/GitLab, Maple

Professional Experience

Peer Tutor

October 2023 – December 2025

University of Scranton, Office of Student Support and Success

- Provided personalized tutoring in mathematics and computer science through one-on-one instruction tailored to individual learning needs.
- Facilitated drop-in tutoring sessions for both individual students and small groups, addressing diverse academic challenges in real-time.
- Improved students' average academic performance by approximately 30% through customized study plans and targeted skill development.

Work Study Assistant

September 2025 – Present

University of Scranton, Office of Global Education

- Promoted Global Education programs through workshops and student engagement.
- Managed budget, spending, and travel requests for the International Students Club.

Research Experience

Independent Quantum Computing Research

September 2025 – Present

- Implemented quantum and hybrid simulation algorithms using Python and Qiskit.
- Investigated approaches for simulating quantum chaos using Variational Quantum Eigensolver (VQE).
- Investigated the stability of 1 and 2-qubit quantum Z gates that implement the VQE algorithm by modifying the readout error

Projects

Surface Evolver Web Application

January 2026 – May 2026

- Accelerated development of a full-stack web application by integrating Claude Code into the workflow, wrapping a legacy C codebase into a Python CFFI wrapper with a FastAPI backend and React.js frontend.
- Designed a custom RESTful API that enables low-latency communication between the backend and frontend, leveraging AI-assisted scaffolding to reduce initial routing setup time.
- Implemented a GitHub Actions CI/CD pipeline for automated testing (unit, integration and end-to-end) of the application deployment.

Full-Stack Group Chat Application

September 2024 – December 2024

- Designed and implemented a full-stack group chat application in C using a client-server architecture.
- Deployed the server on an AWS-hosted FreeBSD instance with Docker for cross-platform compatibility.
- Worked on exploring Variational Quantum Eigensolver and how they can be used to simulate Chaos in a hybrid quantum-classic computer system.

Recipe Diary Android Application

April 2026 – May 2026

- Built a full-featured Android application according to the MVVM Architecture in Kotlin with Jetpack Compose for recipe creation, management, and persistent storage.
- Architected data persistence layer using SQLite with Room ORM and integrated REST APIs via Retrofit for remote data synchronization.
- Designed and implemented comprehensive test coverage across unit, integration, and end-to-end testing layers to ensure code quality.

Leadership Experience

Student Government Senator

September 2024 – April 2026

- Chair of academic and scholastic initiatives, leading committee meetings and setting agendas.
- Served as liaison between Student Government and the Office of Global Education.
- Advocated for student-led policy improvements.

President, International Students Club

April 2025 – April 2026

- Managed club operations, coordinated leadership teams, and planned campus-wide events.
- Increased membership and engagement through targeted outreach.

Retreat Leader

May 2024 – March 2026

- Led and coordinated multi-day outdoor retreats for university cohorts, overseeing end-to-end logistics, hiking itineraries, and supply distribution.
- Managed risk and safety compliance for groups of over 15 participants, ensuring strict adherence to safety protocols during high-risk outdoor activities.
- Developed and delivered impactful presentations and keynote talks aimed at fostering group cohesion and personal development.
- Directed supply chain logistics, including budget-conscious meal planning, inventory management, and gear preparation for all participants.