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EDUCATION

The Pennsylvania State University

- BS in Computer Science 2022-2026 (Expected) GPA: 3.98
  Minors in Cybersecurity and Computer Engineering

Relevant Coursework

Database Management, Systems Programming, Computer Architecture, Deep Learning, Data Structures and Algorithms, Computer Vision, Web Apps with OOP, Intermediate C++

TECHNICAL SKILLS

Languages/Frameworks: Python, Java, C/C++, Verilog, TypeScript, React
Data/Databases: SQL, PostgreSQL, MySQL, SQLite

RELEVANT EXPERIENCE

EdNotes.wiki *Fall 2025*

- Developed a full-stack web application serving as both a personal portfolio and an interactive platform for publishing computing articles and demonstrations.
  - Built a responsive frontend using **React & TypeScript** with a **Java (Spring Boot)** backend and **PostgreSQL** database.
  - Containerized the backend with **Docker** and deployed to a **DigitalOcean droplet.**

Simulated Thread Scheduler *Fall 2025*

- Developed a low-level **C** program using the **pthreads** library to simulate an operating system's thread scheduling.
  - Implemented a modular scheduling interface supporting First-In-First-Out (FIFO), Shortest Remaining Time First (SRTF), and Multi-Level Feedback Queue (MLFQ) algorithms.

IT Auditor Intern: *ATI - Pittsburgh, PA* *Summer 2025*

- Built a data analysis tool to identify duplicate invoices and erroneous payments, detecting duplicates with a combined worth of ~$40,000.
  - Wrote tests with **Pandas** and **SQL** to flag potential duplicates.
  - Designed a user interface using **HTML** and **CSS**, documented code, and wrote a user manual to support adoption and ease of use.

Embedded Systems Fan Control Project *Spring 2024*

- Designed and implemented a fan control system using both an **FPGA (Verilog)** and an **Arduino Microcontroller (Embedded C)** for comparative evaluation.
  - Analyzed tradeoffs between FPGA-based and microcontroller-based approaches.
  - Presented findings at Penn State New Kensington Research Expo.

EXTRACURRICULARS

Tau Beta Pi 08/2024 - Present
University Park, PA

Volunteer PowerPoint Creator 06/2022 - Present
Central Presbyterian Church, Tarentum, PA

Penn State New Kensington Honors Program 08/2022 - 05/2024