Matthew Pattok

University of Pennsylvania - School of Engineering and Applied Science

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Work Experience

Univeristy of Pennsylvania   August 2023 - August 2024

Teaching Assistant

- TA'd for CIS 2400 (Introduction to Computer Systems)
- Held office hours to help students understand course and homework
- Graded written and programming assignments
- Wrote Bash and JS to aid learning and grading

Education

University of Pennsylvania   Expected Graduation May 2026

Majoring in Computer Science (BSE), with a second major in Philosophy *Philadelphia, PA*
and a minor in Mathematics.   *GPA: 3.51 / 4.0*

Skills

- **Programming Languages:** JavaScript/TypeScript, OCaml, C, Python, Java, C#, Bash
- **Development:** Git & GitHub, Docker, gdb, React.js, Express.js, SQL, MongoDB
- **Other Tools:** GIMP, Microsoft Office, Google Drive, Adobe Premiere Elements

Projects

Haskell Prisma   Fall 2024

- Used pair programming to create a Haskell generator for the Prisma ORM database tool
- Created a parser for a schema and a generator for Haskell modules
- Developed support for SQLite, implementing basic CRUD operations

Webapp Project - SkillExchange   Spring 2024

- Worked in team rotating Agile roles (Project Lead, Dev, UI, DevOps)
- Implemented frontend with React
- Implemented backend with MongoDB and Express
- Tested project with Jest

Hardware Design for RISC-V   Spring 2024

- Used SystemVerilog to implement the RV32IM specification
- Implemented 5-stage pipeline and AXI4-Lite memory interface