

Matthew Pattok

Student - University of Pennsylvania - School of Engineering and Applied Science
pattok.matt@gmail.com - (269) 804-8708

Education

University of Pennsylvania (in progress)

Computer Science, BSE. Concentration: Software Foundations
Second major in Philosophy. Concentration: Political and Moral
Mathematics Minor

Expected Graduation May 2026

Philadelphia, PA

GPA: 3.51 / 4.0

Skills

- **Programming Languages:** JavaScript/TypeScript, OCaml, C, Python, Java, C#, Bash
 - **Development Tools:** Git & GitHub, Docker, gdb
 - **Other Tools:** GIMP, Microsoft Office, Google Drive, Adobe Premiere Elements
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Work Experience

University of Pennsylvania

Teaching Assistant

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
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August 2023 - August 2024

Projects

Haskell Prisma (in progress)

GitHub: <https://github.com/brianbob12/haskell-prisma>

- Pair programming project
- Haskell Generator for Prisma ORM
- Parses schema.prisma file and outputs Haskell module
- Supports SQLite, implements basic CRUD operations

Fall 2024

Webapp Project - SkillExchange

GitHub: <https://github.com/cis350/group-project-team-15>

- 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

Spring 2024

Hardware Design for RISC-V

GitHub: <https://github.com/pattokseas/cis4710>

- Used SystemVerilog to implement the RV32IM specification
- 5-stage pipeline: fetch, decode, execute, memory access, writeback
- AXI4-Lite memory interface

Spring 2024