Nathan Cohen

https://www.cs.purdue.edu/homes/cohen53/

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EDUCATION

Purdue University — West Lafayette, IN
Bachelor of Science in Computer Science — *Aug 2017 – May 2021*
Certificate of Entrepreneurship — *GPA:* 3.79/4.00

EXPERIENCE

Cisco Systems — San Jose, CA
Software Engineering Intern — *May 2020 – Aug 2020*

- **Causality**: Designed and implemented a root cause analysis library, which was used for detecting failures in routers. Strategies include parsing and evaluating custom expressions across various hierarchical forms of data.
- **Causality UI**: Developed a React front end to display hierarchical results of a causality graph evaluation.

Discover Financial Services — Riverwoods, IL
Software Engineering Intern — *May 2019 – Aug 2019*

- **Secure Document Upload**: Implemented backend of account recovery system in Spring Boot application within security spec. Successfully deployed and maintained product with 95% test coverage. Implemented and maintained Jenkins pipeline for code deploy and testing.
- **JWT 2.0**: Refactored legacy API to abide by modern security standards.

Purdue University — West Lafayette, IN
Teaching Assistant & Volunteer Work — *May 2018 – Dec 2019*

- **CS 18000: Problem Solving and Object-Oriented Programming**: Authored bi-weekly labs for Purdue's introduction to computer science course in Java. Mentored students in completing their work.
- **CS 25100: Data Structures and Algorithms**: Worked as senior undergraduate teaching assistant under Professor Gustavo. Prepared and graded homework and exams, and wrote automated grading bash scripts.
- **Purdue Athletic Life Success Program: Computer Science Instructor**: Organized and directed a 4-week introductory computer science course for students from Lafayette area primary schools.

Alpha Epsilon Pi — West Lafayette, IN
Philanthropy Chair — *Sep 2018 – Dec 2019*

- Managed year long committee for organization's philanthropy event and raised upwards of $3,000 dollars for charity.
- Recognized for best philanthropy growth at Alpha Epsilon Pi's International convention.

PROJECTS

UDP Video Stream: Researched and designed a client/server video streaming application over UDP that deconstructs, sends, and reassembles H.264 frames.

Boarding Simulator: Designed multithreaded program to simulate the airbus boarding experience, testing different patterns of order to decrease wait time.

Depend On Me: Built backend for web application performs task managements and scheduling for teams practicing Agile.

LST Scheduler: Developed and implemented a new process scheduler for the XINU operating system which used slack team as means for deciding priority.

RELEVANT COURSEWORK

- Data Structures & Algorithms
- Operating Systems
- Analysis of Algorithms
- Computer Networks
- Information Systems
- Systems Programming
- Compilers
- Cryptography
- Computer Security

PROGRAMMING SKILLS

Languages: C, C++, Python, Java, Scala, Rust, ARM, SQL, PL/SQL, JavaScript
Technologies: GCC, LLVM, LLDB, Spring Boot, JDBC, JUnit, Flask, Jenkins, AWS, LaTeX, ANTLR, React