Aaron Falk

aaronfalk25@gmail.com | (+1) 724-647-7530 | Fombell, PA 16123

SOFTWARE EXPERIENCE

Lifeway Christian Resources – Software Development Engineer Intern

June 2024 – August 2024

- Contributed to the development of diverse components and modules in React for MyLifeway.Com, a web application serving over 100,000 unique monthly visitors.
- Developed and maintained tests using the Jest framework.
- Facilitated the transition from React Redux to React Query for state management.

PGT Trucking – Applied Technology Intern

May 2022 – August 2023

- Led development for an application to streamline billing and payroll processes that reduced end-user time spent on these tasks with a 22% increase in productivity.
- Created an enterprise-level RESTful API using the Express framework that dynamically generates PDF documents.
- Automated processes using Python scripts scheduled through the Windows Scheduler, optimizing workflows for enhanced productivity.

HackPSU – Technical Team Member

January 2023 – Current

- Developed HackPSU platform tools utilized for registration and event coordination.
- Mentored new team members, accelerating onboarding and increasing team productivity.
- Organized and judged projects at the largest Hackathon at Penn State.

EDUCATION

The Pennsylvania State University **GPA: 3.99 / 4.00**

Bachelor of Science in Computer Science Date of Graduation: December 2024

Minor: Mathematics

College of Engineering and Schreyer Honors College

Courses: Data Structures & Algorithms, Database Management Systems, Machine Learning & AI, Operating Systems, Statistics

SKILLS

- **Programming Languages**: C, Java, JavaScript, Python, React, Scheme, TypeScript, Verilog
- **Markup Languages:** CSS, HTML, LaTeX, Markdown
- **Database:** Google Cloud SQL, Google Firebase, MariaDB, Microsoft SQL Server, Supabase
- **Version Control:** Git and GitHub

RESEARCH EXPERIENCE

The Pennsylvania State University, Department of Computer Science and Engineering

January 2024 – Current

- Investigated the Boolean Satisfiability Problem, exploring how to improve SAT-solving algorithms by using a Graph Attention Network to guide the decision heuristic.
- Developed an integration with LLMs and formal verification solvers, leveraging the advantages of two different systems to create a robust abstract problem solver.