Liam Waterbury

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Objective

To obtain a full time position in the software engineering field

Education

Bachelor of Science, Software Engineering **May 2024**
Minors in Data Science and Spanish **GPA: 4.00**
Rose-Hulman Institute of Technology, Terre Haute, IN

Related Courses: Data Structures & Algorithm Analysis, Soft. Quality Assurance, Soft. Project Management, Computer Architecture, Soft. Architecture, Soft. Design, Computer Vision, Programming Language Concepts, Data Mining, Deep Learning

Skills

- Programming Languages: Java, Python, C, JavaScript, Typescript, C#, and SQL
- Frameworks: Proficient with React.js and Familiar with React Native and Litestar
- AWS: Lambda, S3, Cloudwatch, and ECS
- 6 years of Spanish classes and lived in Argentina; have minor

Experience

Telemetry Sports -- Software Engineer Intern -- Noblesville, IN **Summer 2023**
- Converted portions of the flagship product to new ASGI Litestar API
- Introduced Brotli compression response and cache handling for new API
- Redesigned core application for new API and for easier feature extension

Telemetry Sports -- Software Engineer Intern -- Noblesville, IN **Summer 2022**
- Full-Stack Software Development, React.js Frontend and MongoDB Backend
- Corresponded with NFL and NCAA clients to craft custom data reports and playcards
- Designed Flask API blueprints and endpoints for AWS Lambda serverless deployment

DEKA Research and Development -- Intern -- Remote **Fall 2023-Present**
- Develop new algorithms for an autonomous mobile robot
- Test the algorithms using robot sensor data

Projects

Computer Vision Stat Extractor, MatLab **Spring 2023**
- Designed a program to track and extract real world position data from soccer footage
- Applied data mining concepts to extract movement data and team/player tendencies
- Trained ML models for player, ball, and field line detection for homography generation

Soccer Stat Database and Interface, SQL and Java **Spring 2022**
- Led a team of two teammates to design database schema and use cases
- Developed MSSQL Database with Triggers, Indices, and Stored Procedures
- Ensured full SQL injection protection on backend and java frontend

Landscape Contracting Application, Js and Python **Summer 2022**
- Personal project for posting and bidding local small scale contracting work
- Built Flask API with token authorization served with AWS Lambda
- React Native frontend, Firebase Authentication

16-bit Accumulator Processor, Verilog **Winter 2021**
- Collaborated with a team of four to design and implement a CPU datapath
- Developed a custom machine code language to build a relative prime program
- Designed and fully documented a processor and assembler from the ground up

Honors & Activities

- Noblitt Scholar Honors Program **2020-Present**
- Rose-Hulman Dean's List **2020-Present**
- Pi Kappa Alpha Fraternity Treasurer **2022-2023**
- Rose-Hulman Varsity Men's Soccer **2020-2021**
- Rose-Hulman Soccer Club **2021-Present**
- LEAD - Leadership Academy Graduate **2020**