Benjamin Porter

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Education

The University of Texas at Austin **Aug. 2017 – May 2021**
B.S. in Computer Science Cumulative GPA: 3.70
Coursework: Information Retrieval, Virtualization, Ethical Hacking, Network Security & Privacy, Algorithms, Data Structures, Computer Networks, Operating Systems, Computer Architecture, Compilers, AI

Work Experience

Koddi **Jun. 2020 – Present**
Software Development Intern Remote

- Implemented IP address-based bot detection and filtering in a distributed message queue platform written in Go, including automatic rollback of advertiser budgets to prevent overspending from bot traffic
- Updated backend logic for advertiser budget updates to improve database consistency and to support use cases for different types of ad campaigns
- Scaled up an end-to-end test to use 150,000 real client requests, giving a better estimate of performance

WP Engine **Jun. – Aug. 2019**
Software Engineering Intern Austin, TX

- Modified endpoints in a Django-based billing system to support retrieving a list of unprocessed invoices and updating the database once invoices are processed externally
- Bootstrapped a new microservice written in Go that runs alongside the existing billing system, periodically reconciling invoices to increase throughput and reduce error rates
- Participated in Scrum ceremonies and code reviews, and communicated updates to internal stakeholders

Parasol Laboratory **Jun. – Aug. 2016**
Research Intern College Station, TX

- Worked on a research project applying robot motion planning to the prediction of binding sites on proteins
- Implemented several metrics in C++ to evaluate candidate binding sites using physical characteristics

Projects

ComPy-la-Webs **Jul. 2019**

- Implemented a lightweight virtual machine for Python in C++ that compiles to WebAssembly, allowing Python code to run in a browser
- Created a proof of concept supporting several Python instructions and a keyword for calling into JavaScript from Python code

Web Crawler and Search Engine **Nov. – Dec. 2017**

- Designed a web index in Java using inverted indexing to map words to pages where they appear, and implemented a query language supporting precedence order and logical operations
- Developed a comprehensive testing framework using JUnit, generating random collections of pages and links with graph algorithms and comparing results between my search engine and a search utility

Skills

Proficient: Java, Go, Python, C
Familiar: SQL, NoSQL (Aerospike), HTML, CSS, JavaScript, C++, Haskell
Tools: Git, Docker, Kubernetes, shell scripting
Concepts: backend development, object-oriented programming, CI/CD, REST APIs, testing, web security

Extracurricular Activities

Competitive Programming: competed in biweekly programming contests individually and in teams
Information and Systems Security Society: attended biweekly capture-the-flag contests and security talks