Erick **Dolores**

Software Engineer · Backend, Cloud, Infrastructure

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Education

Swarthmore College
Swarthmore, Pennsylvania

B.S. in Computer Science and Minor in Education — *Aug. 2018 - (Expected) May. 2022*

Experience

Google
Remote Work

SPS Participant — *Jan. 2020 - May. 2020*

- Developed an app that creates friend groups through a Tinder-like matching system in collaboration with a team of peers and a Google engineer by using Java, JavaScript, HTML, CSS, and Google services such as App Engine and Cloud Datastore.
- Contributed 1000+ lines of code to open source software using Git and GitHub, conducted code reviews with/for teammates, and extended new chat functionality to an existing codebase.

Amtrak
Philadelphia, Pennsylvania

Software Engineering Intern — *Jan. 2020 - Apr. 2020*

- Designed and documented the architecture for a Java-based web client that will use the SOAP protocol to accelerate the retrieval of SQL transaction logs from HP NonStop servers by 98%.
- Reduced technical debt for a train scheduling app by writing Java code to introduce compatibility with new routes and using MySQL Workbench to create over a dozen SQL schemas.

Electronic Arts (EA)
Redwood City, California

Software Engineering Intern — *May. 2019 - Aug. 2019*

- Practiced the Agile/Scrum development methodology to develop, stage, and produce a Grafana dashboard that extracts health data from Maxis Studio's live service infrastructure through API, JSON, and .INI file configurations.
- Imported metrics from services like Apache Cassandra, Redis, Jenkins, etc. using Graphite in order to monitor 20+ operations that helped with tasks like server migration to AWS cloud.
- Spun up AWS S3 instances, SQS messages, RDS connections, etc. in 4 different distributed system architectures to assure the functionality of a local test dashboard running off of a Docker container.

Projects

Concurrent Web Server
Swarthmore College

C, HTTP, TCP — *February 2020*

- Implemented a multithreaded HTTP server that can process multiple browser connections by using TCP sockets to transfer data, pthreads to parallelize functions, and Telnet/Wget to test the program.
- Learned how to process an HTTP query and return text and binary file formats in an HTTP response, while using HTML to return either local files or 404 error codes.
- Utilized GDB while unit testing helper functions in order to reverse engineer bugs.

DNS Client
Swarthmore College

Python, DNS, UDP — *November 2019*

- Created an iterative DNS client that can pack, unpack, and parse binary data to resolve domain host names (like google.com) to IP addresses.
- Built the client on top of UDP sockets to send/receive data to root, TLD, and authoritative DNS servers.
- Made use of Wireshark to debug DNS response packets at the binary level.

CLI File Downloader
Swarthmore College

Java, HTTP — *September 2019*

- Given a number of threads and a URL, this tool downloads files by using HTTP ranged requests to improve I/O performance, download speed, system resource usage, and scalability.
- Employing parallelization and object-oriented programming, the tool concurrently writes data from threads into .part files, which are combined and transferred to a single file channel.

Skills

Languages: Java, C, C++, HTML, CSS, Javascript, Python, Spanish

Technologies: Linux, Git/Github, Bitbucket, Maven, Google Cloud Platform, Valgrind, GDB, LaTex, Gson, FUSE library

Coursework: Algorithms, Computer Networks, Operating Systems, Data Structures and Algorithms, Intro to Computer Systems