Drew Halverson

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Experience

Staff Software Engineer (L4) July 2022 – Present
Palo Alto Networks *Santa Clara, CA (Remote)*

- Created new reverse-proxy micro-service in Golang in order to improve scalability of existing Kubernetes micro-service by routing stateful API requests based on customer tenant; maintained correct cache mappings for request routing to optimize runtime by avoiding Neo4j database reads when possible
- Resolved customer-facing production bugs shortly after onboarding to new service exposed via gRPC that schedules agent software upgrades using Temporal, given ownership of this service as a result
- Improved scalability of above service to support upgrades for 5x more agents per tenant and reduce read load on MongoDB for the UI
- Implemented project that enables existing customer licensing infrastructure running on AWS Lambda to communicate licensing changes with separate Kubernetes micro-service via API requests; completed in two weeks while learning new code base (customer licensing) and re-learning Python and AWS (Lambda, API Gateway, RDS)

Software Development Intern June 2021 – August 2021
Amazon *Seattle, WA (Remote)*

- Streamlined deployment of datasets used to inform delivery drivers on tasks such as locating a mailroom, unlocking a door with a code, or finding the correct unit of an apartment/condo complex
- Developed code on AWS Lambdas to monitor dataset deployment progress tracked in DynamoDB
- Leveraged AWS SQS to communicate dataset deployment completion events between Lambdas
- Marked the correct version of each dataset as "live" in AWS AppConfig for the delivery driver mobile app to use

Software Engineer Team Lead October 2020 – April 2021
Trulight Project *Cedarburg, WI (Remote)*

- Led a team of interns working on backend algorithm and API development; organized the team's work using Jira, prioritized critical tasks for release of first major version of backend
- Reduced TruLight safety score API runtime by ∼25% by using concurrent APIs calls and refactoring existing code
- Added usage of JWT tokens to incoming API requests from TruLight mobile app for increased security

Software Engineer Intern March 2020 – October 2020
Trulight Project *Cedarburg, WI (Remote)*

- Created UML modeling diagrams for the first version of backend TruLight algorithm implemented by the team
- Developed an API hosted on GCP with Java Spring framework that retrieved data from sources such as United States Census, weather, and FBI APIs to calculate a TruLight safety score for the user's location

Projects

File Backup Tools | *Java, Git* January 2020 - August 2020

- File manager that uses a custom tree data structure traversed smartly by choosing which folder to look in next based on the file name that is being searched
- Support for deleting files in bulk that no longer exist on source drive or have a duplicate backup

Covid-19 Visualizer | *Java, JavaFX, Git* April 2020 - May 2020

- Displays Covid-19 case data on a graph generated from user selection of country and time range from JavaFX GUI

Technical Skills

Languages: Golang, Java, Python, C/C++, SQL, JavaScript
Cloud Computing: **GCP** (PubSub, BigQuery, Kubernetes, Dataflow, App Engine, Datastore, Endpoints, Cloud Run, IAM), **AWS** (Lambda, DynamoDB, RDS, SQS, API Gateway, IAM, AppConfig), MongoDB, Neo4j
Frameworks: Swagger, Gorilla Mux, Go Testing, GoMock, Spring Boot, JUnit, Mockito, Python "unittest"
Other: Temporal, Docker, JWT Tokens, gRPC, Http, WebSocket, Protobuf, Git, GitLab, GitHub, Jira, Asana, Postman, Lightstep, VS Code, IntelliJ, Vim, Linux, Grafana (Observability Dashboards, Alerting)

Education

University of Wisconsin - Madison September 2019 – May 2022
Bachelor of Science in Computer Science – GPA: 3.67

University of St. Thomas September 2018 – May 2019