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 by refactoring Temporal workflows, and reduced load on MongoDB during UI page loading by removing need for joins
- 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