

# THOMAS ALEXANDER

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EDUCATION      B.S., Computer Science      Dean's List      GPA: 3.33/4.0  
Rensselaer Polytechnic Institute, Troy, NY

SKILLS      Languages: Rust, Python, Java, Javascript, HTML/CSS, Bash, Lua  
DevOps Tools: Kubernetes, Docker, Ansible, Terraform  
Cloud Platforms: Google Cloud, AWS  
Operating Systems: Linux, FreeBSD

EMPLOYMENT      Harmonic.ai, Remote



DevOps / Senior Software Engineer      4/2021-2/2023

- Sole DevOps Engineer for Harmonic, responsible for the development and maintenance of our cloud infrastructure
- Transitioned Harmonic from AppEngine to Kubernetes, and introduced Terraform
- Lead cost-cutting initiatives and wrote a twice-monthly report on engineering expenditures
- Discovered a RCE (remote code execution) vulnerability in the JWT authentication plugin we were using
- Significantly improved database performance through the use of indices and statistics. Also added autoexplain and designed a fix to a database lock issue that was causing serious downtime

Stella.ai, Redwood City, CA; New York City; Remote

DevOps / Senior Software Engineer      5/2017-4/2021



- Sole DevOps Engineer for Stella, responsible for the development and maintenance of our cloud infrastructure
- Migrated our platform from Ansible and AWS to Kubernetes and Terraform on Google Cloud
- Built and secured our VPN infrastructure using Wireguard and FreeBSD
- Created a streaming log setup using Google Cloud Functions, Google Dataflow, Google Pub/Sub, and Google BigQuery
- Created CI infrastructure using Docker and Jenkins
- Created our secrets infrastructure and integrated that into our webserver using Hashicorp Vault and Python
- Also performed regular backend software engineering tasks such as implementing search endpoints, writing integrations for new Applicant Tracking Systems (Workday, Kenexa, SmartRecruiters)



TripAdvisor, Palo Alto, CA

Software Engineer II

5/2013-5/2017

- Led the transition to a new templating engine (dust.js)
- Wrote internal tools for crawling our site and detecting bugs
- Wrote internal tools for managing code reviews across multiple teams
- Maintained our ElasticSearch cluster as a member of the search team
- Implemented a rewrite of the mobile website as a member of the mobile web team
- Contributed to a Java port of the dust.js templating engine
- Wrote an internal tool for detecting dead CSS rules to improve performance

Intel, Allentown, PA

Software Development Intern

5/2011-5/2013



- Creating internal utilities to facilitate the initialization of C structures using Clang/LLVM as a parser.
- Authored internal tools and scripts to identify errors in modem logs
- Wrote a scripting language and an interpreter to create a versatile test harness