Eli Pandolfo

Software Developer

Personal Info

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- github.com/elip12

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- elip12.github.io

Professional Skills

Tools
- Kubernetes
- AWS
- Terraform
- UNIX/Linux
- Saltstack
- Postgres
- Django

Development Practices
- CI/CD
- Agile
- TDD/BDD
- RESTful API Architecture
- Relational Database Design
- Software Testing

Languages
- Go
- Python
- Bash
- JavaScript
- C & C++

Certifications

- AWS Technical Professional

About Me

Infrastructure engineer at Robinhood focusing on orchestration and capacity engineering. At UC Santa Cruz I worked in computational economics and researched bacterial genomics. In my down time I climb, mountain bike, and backpack.

Experience

Infrastructure Engineer *Robinhood, Menlo Park, CA* 2020 - present
- Drove the story of Kubernetes cost efficiency at Robinhood from the orchestration side:
  - Led two other engineers in a cost effiency workstream dedicated to decreasing Robinhood's infrastructure footprint without sacrificing reliability or developer velocity.
  - Worked with application teams and capacity engineering team to continually right size Kubernetes clusters, and implemented node-level Kubernetes autoscaling in dev and prod environments, saving the company an estimated $1M+ per month compared to peak levels during IPO.
  - Identified bottlenecks and drove improvements to node creation reliability to unlock safe autoscaling, including implementing mixed AWS instance types, building a platform for easily creating dedicated compute infrastructure for specific use cases like large tax season processors, and identifying and fixing bugs in upstream code to decreate P95 node creation latency by >60%.
- Upgrade all of Robinhood's Kubernetes clusters from 1.12-1.15 and 1.15-1.18, which includes researching changes and deprecations, writing Go & Bash command-line tools to perform the upgrade, refactoring source code to improve configuration abstractions, improving node autoscaling to automate data plane churn, performing the upgrades, and responding to associated incidents.
- Write and extend Kubernetes controllers to automate and manage provisioning of pods and nodes.
- Mentored three new engineers as they onboarded onto the Orchestration team.

Lab Programmer *LEEPS Lab, UC Santa Cruz, CA* 2017 - 2018, 2019 - 2020
- Developed real-time multiplayer economics experiments for research into markets, game theory, and decision-making.
- Wrote Python and Bash scripts to analyze and visualize experiment data.
- Set up and maintained a public Linux production server.
- Hired, trained, and supervised four lab programmers.

Software Engineering Intern *productOps, Santa Cruz, CA* 2018 - 2019
- Developed Node API and Postgres database that simplifies and streamlines the creation of AWS infrastructure, reducing startup overhead for new projects.
- Wrote end-to-end and integration tests for Angular/Node web apps, ensuring safe updates to production applications with 1000+ users.

Education

BS Computer Science *UC Santa Cruz* 2016 - 2020
- GPA: 3.96
- Regent's Scholarship
- College Scholars Program
- Undergraduate bioinformatics & machine learning research with Linqs Lab
- Areas of focus: bioinformatics, computational economics, data wrangling & machine learning, parallel processing

42 Piscine *42 Silicon Valley* 2017
- Four-week intensive C coding program at School 42 in Fremont, CA