Pedraam Nikzad

CS + Bio @ UC Berkeley ● SWE Intern @ Poshmark

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Education

University of California, Berkeley *Berkeley, CA*
B.A., Computer Science and Integrative Biology, GPA: 3.76 August 2019 – December 2022

Relevant Coursework: Data Structures, Efficient Algorithms and Intractable Problems, Machine Structures, Structure and Interpretation of Computer Programs, Artificial Intelligence, Software Engineering, Discrete Mathematics and Probability Theory, Linear Algebra and Differential Equations

Experience

Poshmark *Redwood City, CA*
Software Engineer Intern, Growth Team June 2022 - August 2022

- Built React app to take in votes from Amazon Mechanical Turk workers on listing matches as part of an effort to categorize listings more accurately. Data served from and recorded to PostgreSQL database.
- Created data pipeline from ElasticSearch→React App→AWS S3→AWS Redshift→Mongo (core database). Essentially glued these different compartments together using a combination of SQL scripts (PSQL, Redshift), Rake tasks (Ruby), Jaketasks (Javascript).
- Created custom SQL tables to analyze voter data in an effort to find irregularities and pinpoint accuracy threshold to accept listing matches.
- Served as generalist in role, providing support along the full technology stack including writing support Rake tasks for QA to use, optimizing query script performance, creating data reports, and working heavily on UI components.

Technologies: Ruby, JavaScript, SQL (Postgres, Redshift), Elastic Search, Amazon Web Services (S3, EC2, Mechanical Turks)

Zuora *Redwood City, CA*
Software Engineer Intern, Tools Team January 2022 - June 2022

- Designed, wrote and deployed API Gateway end-to-end in Go to automate infrastructure provisioning. Integrated with MongoDB database to store request records.
- Wrote Python script that generates Go code for new endpoints in API Gateway. Wrote shell script to facilitate pull and push to master when code is written.
- Created Spinnaker pipeline that spins up manually configured Istio across all Zuora domain Kubernetes clusters using custom Helm charts.
- Wrote Boto3 scripts in Python to efficiently move data from AWS S3 to Hive Metastore. Dockerized scripts which ran on a Kubernetes cluster using an Argo CronWorkflow.

Technologies: Go, Docker, Kubernetes, Spinnaker, Argo, Python, Istio, Shell, Amazon Web Services (S3, Athena), Google Cloud Platform (VM Instances, Instance Templates), Microsoft Azure (App Service, Groups)

Projects

Go Chess Engine (🔗) August 2022

- Wrote Chess engine from scratch in Go. Relies on Minimax algorithm with move ordering, board state represented as bitboard. *Check out code:* **github.com/pedraamn/Go-Chess-Engine**
- Wrote Chess front-end from scratch in Javascript (React) using functional components. Fully implemented all Chess game logic and designed to be compatible with browsers. *Check out code:* **github.com/pedraamn/React-Chess-Frontend**
- Uploaded Go engine logic into an AWS Lambda function where it can be requested. React front-end code serializes current board state into JSON, then requests the Lamba function through an AWS API Gateway with a JSON body, the Lambda function then returns the best move as a response.
- Feel free to try the engine out yourself @ **gochessengine.com**