Elvis Wei

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EDUCATION

University of California, Berkeley Berkeley, CA
Bachelor of Arts in Computer Science *Aug. 2019 – Present*
GPA: 3.95/4.0
- Current Coursework: Internet Architecture, Computer Security
- Relevant Completed Coursework: Intro to CS, Data Structures, Machine Structures, Discrete Math and Probability, Efficient Algorithms, Machine Learning, Operating Systems, Artificial Intelligence, Video Game Design and Development

EXPERIENCE

Amazon Seattle, WA
Software Development Engineer Intern *May 2022 - Aug. 2022*
- Designed and launched end-to-end workflow management and diagnostics application with React, Cloudfront, and Cognito
- Engineered Lambda proxy + API Gateway serverless backend to interact with Step Functions and DynamoDB that handles 1000 transactions per second
- Built AWS CDK + Cloudformation continuous deployment pipeline enabling developers to automatically test and deploy service to multiple stages and regions
- Won 1st place in internal Computer Vision classification competition; researched and leveraged state-of-the-art CV strategies such as transformers, cross-validation, and ensembling

Software Development Engineer Intern *May 2021 - Aug. 2021*
- Pioneered and designed new Seller Security Center project that allows merchants to take proactive action on security threats
- Implemented Seller Security Center web application with React front-end, Spring back-end, and DynamoDB database
- Performed data analysis of over 10,000,000 activity records with AWS Athena and AWS Sagemaker to develop an automatic activity auditing algorithm

UC Berkeley School of Information Berkeley, CA
Research Apprentice *Jan. 2022 – Present*
- Evaluated the use of metadata injection in improving word vector embeddings
- Introduced multiple enhancements to the TransE model for use on Reddit data knowledge graph completion
- Enhanced models achieved 33.85% Hits@10 accuracy (TransE baseline 31%) on prediction task

Rimble Berkeley, CA
Software Engineer Intern *Jan. 2021 – May 2021*
- Performed statistical analysis on multiple prediction databases; leveraged analysis to diagnose prediction algorithm bugs and improve end-user data readability
- Documented REST API on React website which connects 1,000+ professional *League of Legends* players, teams, and match result predictions
- Enhanced backend API service by integrating Cloudwatch logging capabilities and load testing

PROJECTS

NavBuddy | *Python, Flask, HTML/CSS, Tensorflow, NLP* Jan. 2021 – May 2022
- Directed and launched NavBuddy, a webapp identifying 1000+ matches between resource requests and resources, reducing manual request resolution labor by up to 90%
- NavBuddy full-stack webapp foundationed on Flask backend and Bootstrap for UI; deployed on Heroku
- Trained DistillBERT model as matching algorithm with semi-supervised learning and NLP data augmentation, achieving 97% accuracy and 98% ROC-AUC

ElvisBot | *Python, Javascript, PyTorch, NLP, Flask, React* Dec. 2021
- Created a chatbot webapp that mimics my texting patterns as a Christmas gift for girlfriend
- Trained Dialo-GPT model on 50,000 attention-masked iMessage messages
- Recreated iMessage UI frontend with CSS and React; backend model deployed with Flask

PintOS | *C, Operating Systems, Multithreading, File I/O* Aug. 2021 – Dec. 2021
- Upgraded PintOS educational operating system over the course of multiple group projects and solo homework assignments
- Implemented process control syscalls, support for multithreading, and user-level synchronization
- Transformed memory capabilities with implementation of malloc/palloc and Unix FFS, supporting files up to 8 MiB

CalPokebot | *Python, Discord API, REST API* Sep. 2019 – Dec. 2019
- Built a multipurpose Discord bot which handles over 30 custom typed commands on a Discord chat server
- Unique features support a robust Pokemon capturing and battling system between players and across multiple servers
- Supports over 300 Pokemon, 1000 moves, and multiple generations

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, Assembly (RISC-V), Scheme
Skills and Technologies: Amazon Web Services, React, Node.js, Express, Spring, Flask, Git, Machine Learning