Xinyi Cynthia Li

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Education

University of California, Berkeley **Aug. 2019 – May 2024**

Bachelor of Arts in Computer Science, Double Major in Statistics *GPA: 3.55/4.00*

Technical Skills

- **Programming Languages**: Java, Go, Python, C++, C#, JavaScript, TypeScript, Ruby, SQL, R
- **Web Development**: Ruby On Rails, HTML, CSS, React, Vue.js, Node.js, Angular, Django, Express.js, Spring Boot
- **Other Tools & Frameworks**: Git, Github, Kubernetes, Docker, Prometheus, Grafana, Protocol Buffer, gRPC, MySQL, PostgreSQL, NoSQL (MongoDB, Redis), Message Queue (Apache Kafka, Hadoop, RocketMQ, RabbitMQ)
- **Amazon Web Services**: S3, DynamoDB, SQS, SNS, API Gateway, EC2, ECS, Internet of Things (IoT), CloudWatch
- **Operating Systems**: Linux, Windows, and macOS

Work Experience

Juniper Networks **Jun. - Aug. 2023**

Software Engineer Intern *Cupertino, CA*

- Directly communicated with stakeholders, converted business goals into concrete development tasks, and fully responsible for implementing & launching tools that successfully saved cost of cloud resources and detected cloud abnormalities
- Responsible for the development & maintenance of site reliability, cloud services, streaming frameworks, and databases
- Owner of the Cloud Resource Usage Dashboard (more details below), fully responsible for the 0-to-1 agile development

University of California, Berkeley **Jan. - May 2022**

CS61B Data Structures & Algorithms Teaching Assistant *Berkeley, CA*

- Responsible for helping ∼50 students understand data structures, algorithms, git, complexity analysis & optimization
- Owner of a RESTful API that automatically processes ∼200 students' extension requests and thus saves ∼4h weekly
- Collaborated with students & professors, enhancing teaching approaches and improving the learning experience

Selected Projects

Cloud Resource Usage Dashboard @ Juniper Networks | *Python, SQL, React, GCP (BigQuery), AWS* **Jun. 2023**

A Python/SQL-based full-stack web app that analyzes & cloud resource usage and saves cost for the company

- Owner of the project, fully responsible for the entire development life cycle (both front-end & back-end)
- Responsible for collecting cloud resource usage data, processing from GCP & AWS, and generating a user-friendly report
- Achieved a weekly cloud cost reduction of ∼$5000 by anaylzing the report and changing virtual machine types

Tennis Social Platform Web App @ UC Berkeley | *Ruby on Rails, JavaScript React, Testing* **Aug. - Dec. 2023**

A Ruby-on-Rails-based web application serving as a tennis social platform for ∼200 tennis fans on campus

- Owner of the project, fully responsible for design, review, testing, development, & final launch (back-end & front-end)
- Responsible for developing core features: creating tennis events, sharing availability, sharing game-play videos, etc.
- Implemented multi-lingual settings and enhanced UI/UX design using HTML, Tailwind CSS, JavaScript React
- Utilized RSpec, Capybara & Cucumber for simulation; tested on 30 real matches & 50 players, achieved a 4.7/5 rating

Monitor for Cloud Health Status @ Juniper Networks | *Python, Grafana, Prometheus, Kubernetes* **Aug. 2023**

A python-based cloud service (FaaS), responsible for automatically monitoring existing cloud service health status data, and triggering alarms & warnings when status data are in an abnormal range

- Fully responsible for the back-end development cycle, including design, review, development, testing and final launch
- Leveraged Python, Grafana API, & Kubernetes Cron to automate monitors and alarms for the company's cloud services
- Successfully detected and troubleshooted ∼30 health issues by scalling applications in Kubernetes

Gaming Purchase Recommendation System | *Kafka, ksqlDB, Google Cloud Platform, Stripe API* **Mar. - May 2023**

A recommendation system for in-app gaming props purchases powered by machine learning to boost sales

- Built an ETL pipeline with Kafka & ksqlDB to process 0.5 million real-time messages from 2000 players per minute
- Applied feature engineering to ∼200k data points & ∼80 features, used GCP to train a predictive model that predicts when to push up which game props; the model has F1 score, precision, & true positive rate all above 93%
- Successfully achieved a weekly increment of ∼1000 more in-app transactions and a weekly revenue boost of ∼$3,000