SARAH LI

San Francisco, CA

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Profile

As a software engineer with over 5 years of experience, I am actively seeking a full-time position in software engineering or data engineering. I use my strong background in mathematics and computer science to develop data-driven applications and services. Notable accomplishments include completing end-to-end development of web applications, implementing robust data cleaning processes, constructing analytical dashboards, and applying deep learning models for time series data prediction. I am passionate about continuous learning, constantly adopting new tools and techniques to enhance my skills as an engineer, developer, and analyst. My overarching goal is to use the data to create a positive impact.

Experience

Software Engineer   **May 2018 – current**
San Francisco International Airport ITT DevOps   *South San Francisco, CA*
- Extracted, interpreted, and integrated petabytes of data from diverse internal and external sources.
- Built and maintained data pipelines for machine learning algorithms and DevOps applications, ensuring high-quality data availability.
- Developed comprehensive data-driven applications covering front-end, middleware, and back-end.
- Designed and developed tailored dashboards to facilitate management decision-making processes.
- Automated services and infrastructure leveraging **AWS** cloud services and **CI/CD pipelines** for enhanced efficiency and seamless deployment.
- Collaborated across teams to optimize data capture, storage, and utilization.

Data Engineer Intern   **Jan 2018 – May 2018**
IPMD   *Berkeley, CA*
- ETL gigabytes of facial expression images, performing emotion recognition using **TensorFlow API** and **Google Cloud Services**.

Selected Projects

TNC Refactor | *Data Engineering| Back-end Development*
- Designed and implemented a sophisticated **ETL** process for processing the driving records of billions of TNC vehicles, resulting in a 30% improvement in query efficiency for BI team dashboards.
- Delivered easy-to-use views that store high performance, low-cost **SQL** queries.
- Enhanced a **NodeJS** application utilizing TNC vehicle data on **AWS Lambda** and **API Gateway**, ensuring the sustained stability of the component responsible for estimating ground speed within the mobile app.
- Supported
- Developed a daily email micro-service using **Python** and **AWS Lambda** to promptly alert recipients about potential data anomalies at the statistical level, ensuring timely awareness and proactive management.

Virtual Taxi Queue | *Full stack development* | *ML Operation*
- Conducted **Exploratory Data Analysis** in **Python** to identify gaps and anomalies in time series data, facilitating predictive modeling and feature selecting.
- Designed and implemented crucial machine learning data transformation steps: **one-hot encoding**, **k-fold cross-validation** and more, utilizing **Python** and the **TensorFlow** API. Achieved a notable improvement in overall test accuracy results, with an increase of 10% to 15% during model training.
- Optimized the model training process and documented each session using **MLflow**, enhancing performance monitoring efficiency. Additionally, developed a web app in **ReactJS** for streamlined access and management.

SFO Contact | *Front-end development*
- Created modal for employee contact page with comprehensive test cases using **ReactJS**.
- Deployed browser monitoring with customized attributes to examine user experience in **New Relic**.
- Created dashboards for all the environments from the browser interaction data captured in **New Relic**.

Technical Skills

Frontend: JavaScript, HTML, CSS, React
Backend: Python, Java, PostgreSQL, Node.js, Express.js
Deployment: AWS, Kubernetes, Docker, Jenkins

Education

University of California, Berkeley **August 2015 – May 2018**

Bachelor Degree in Applied Mathematics, minor in Computer Science *Berkeley, CA*

Mt. San Antonio College **August 2012 – May 2015**

General education *Walnut, CA*

Extracurricular

Toastmaster International - Plane Talk **August 2022 – Present**

Webmaster, Active member *SFO commission*

* Act as a webmaster for club members, resolving technical issues related to agenda generation, role assignments, and organizing members' pathways on the club's webpage.
* Attend Bi-weekly meeting as an active member and speaker, growing on presentation mastery pathway while sharing my life and passion.

Cal Hacks **October 2025**

Volunteer *UC Berkeley*

* Act as a volunteer to coordinate the event in stadium, assigning food and tickets to hackers..