Aaron Opell

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WORK EXPERIENCE

Atlassian — San Francisco, CA

Data Engineer II: AI & Platform — April 2024 - *present*

- Built an end-to-end data pipeline processing analytics events for AI features to assess adoption and display trends to business stakeholders using Databricks SQL, Apache Airflow, and Tableau
- Scaled an AI-powered internal Slack bot (built with Python Flask) that surfaces similar questions in help channels from a single channel to over 20 channels, reducing engineering support load when on-call

Data Engineer: Company Metrics and Enterprise — July 2022 - March 2024

- Designed and built terabyte-scale data pipelines powering critical company metrics such as Monthly Active Users and Recurring Revenue using Databricks SQL and Airflow
- Updated and redesigned the Visual Studio Code extension for an internal data pipeline library using Typescript to improve developer productivity with easier codebase navigation, warning hints, and code generation
- Created a Python library to conduct automated unit testing of SQL pipelines using behavioral definitions written in the Gherkin language, providing a way to test at the SQL CTE level
- Integrated newly released and acquired products into existing pipelines and conducted thorough testing to ensure metrics published in the company's public financial reports were always up to date

Dataherald — San Francisco, CA

Software Engineer — June 2020 - May 2022

- Designed and developed the majority of the full stack for a data journalism tool using Python Flask, MongoDB, and PostgreSQL
- Architected a REST API providing journalists with the ability to customize their visualizations in online articles
- Maintained an Apache Airflow instance and other company infrastructure using S3, EC2, RDS, DocumentDB, Elasticache, and other AWS services
- Built an ETL data pipeline creation library using Python and Airflow, powering automated real-time updates for our data visualizations
- Enhanced team productivity by automating and streamlining Jira workflows, allowing quantitative tracking of engineering effectiveness

Amazon — Sunnyvale, CA

Software Development Engineer Intern: Alexa Alarms Team — June 2021 - August 2021

- Designed a proposal for and planned the implementation of adding custom alarm names to alarms set via the Alexa voice assistant
- Collaborated with the Alexa Mobile team to integrate the named alarm features into the Alexa mobile app
- Conducted end-to-end testing of the feature on headless, multimodal, and mobile devices to ensure all behavior was correct

Great Minds Robotics — Los Angeles, CA

Programming Instructor — June 2017 - August 2019

- Guided students in learning to write computer programs using languages such as C#, JavaScript, C++, Java, and MS SQL
- Leveraged knowledge of desktop, web, and database technologies to help students create websites, desktop apps, mobile apps, and games
- Assisted students by demonstrating best practices for testing, debugging, and verifying program behavior

EDUCATION

University of California, Berkeley — August 2018 - May 2022

B.A. Computer Science — **GPA: 3.7**

Relevant Coursework:

- Efficient Algorithms and Intractable Problems
- Operating Systems and System Programming
- Structure and Interpretation of Computer Programs
- Data Structures
- Artificial Intelligence
- Machine Structures
- Computer Security
- Principles & Techniques of Data Science
- Database Systems

PROJECTS AND ACCOMPLISHMENTS

Schoology Plus Browser Extension — December 2017 - *present*

- Created and developed an open source browser extension (using HTML/CSS/TS) which provides new features for and enhances existing capabilities of the learning management system Schoology which allows students to interact with their grades and coursework online
- Composed and maintained comprehensive documentation of features, providing clear and detailed instructions for complex capabilities
- Collected feedback by examining analytics, conducting surveys, and interacting with our users and contributors via an online chat community
- Reaches **over 500,000 monthly users** (and growing!) from hundreds of schools across the world

CyberPatriot Cyber Defense Competition — September 2014 - June 2018

- Secured virtual machines running Windows and Linux desktop and server operating systems by identifying and fixing a variety of security vulnerabilities during a timed competition
- Created and tested scripts (in C#, Batch, and Bash) to automate tedious tasks and assist team members in setting and verifying security policies
- Devised strategies with team members to successfully defend our virtual systems from an attacking red team during the national finals
- **Achievements**:
  - Placed 2nd from among over 3000 teams in the national CyberPatriot competition (2018)
  - Placed 1st (2018, 2016) and 2nd (2017) in the California Cyber Innovation Challenge, a state sponsored competition

SKILLS

Programming Languages

Proficient: Python • JavaScript/TypeScript • C# • Java • SQL
Working Knowledge: C • C++ • Bash • RISC-V Assembly • Go • Scheme

Development Tools

Technologies: HTML • CSS • AWS/GCP • MongoDB • PostgreSQL • Git
Frameworks: Node.js • Flask • ASP.NET • Spark • Databricks