Gaurav Mallya

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EDUCATION

University of California, Berkeley

Berkeley, CA

B.A. in Computer Science

Aug. 2020 - May 2024

Relevant Coursework: Machine Learning, Artificial Intelligence, Operating Systems, Efficient Algorithms and Intractable Problems, Data Structures, Discrete Mathematics and Probability, Computer Architecture, Database Systems

Programming Skills

Languages: Golang, Java, Python, TypeScript, HTML/CSS Technologies: Django, AWS, Git, React, Linux

EXPERIENCE

Benchling San Francisco, CA

Software Engineer Intern

May 2023 - Aug. 2023

- Implemented chained routers within Workflows end-to-end to support multi-conditional AND/OR operations
- Developed Cypress tests to verify that automated mapping populates nodes when scientists execute tasks
- Created an API endpoint that duplicates existing Workflows task schemas to increase configurability

Plate IQ Emeryville, CA

Software Engineer Intern

June 2022 - Aug. 2022

• Designed a Django rules validation engine to ensure processed invoices meet over 200 vendor group specifications

Tesla Fremont, CA

 $Software\ Engineer\ Intern$ 

Jan. 2022 - April 2022

- Built a feature to transfer containers across 6 different Material Flow System locations for vehicle assembly
- Developed and maintained global MySQL databases that stores gigafactory-specific action variables
- o Created essential APIs that are currently used in factory production to monitor supply inventory and have aided in increasing the number of new Tesla vehicles being manufactured from 960,000 to an estimated 1.4 million per year

UpSync Berkeley Berkeley, CA

Project Manager, Senior Advisor

Sept. 2020 - April 2022

- o Implemented a web scraper UI for Captain.tv using Selenium to retrieve streamer information from social media
- Led a team of engineers to build an application with a serverless AWS backend and a React frontend for Burning Rock Biotech that places desired clinical trials from over 5000 trials daily into an accessible MongoDB database

Rimble Berkeley, CA

 $Software\ Engineer\ Intern$ 

Oct. 2021 - March 2022

- Launched an AWS test environment that connects to our DynamoDB ML endpoint and enhances developer testing
- o Developed mechanisms within our API Gateway to catch all inaccurate user API calls without disrupting the flow of information and returning back any necessary error-specific message to alert the user about any issues

Projects

## End-to-End Encrypted File Sharing System

July 2022 - Aug. 2022

- Integrated cryptographic primitives to maintain message confidentiality and user integrity when sharing files
- o Devised a tree structure to ensure that revoked user adversaries can not interact with previously accessible files

WordleJSFeb. 2022 - June 2022

• Redesigned Wordle using native JavaScript and a Trie implementation to increase the efficiency of word detection

Bear Maps Oct. 2020 - Nov. 2020

• Formulated an AI in Java called the A\* search algorithm solver to detect the nearest location relevant to a keyword

## Stock Prediction Using Twitter Sentiment

Feb. 2020 - May 2020

- Handled the Twitter and Tweepy API to collect over 100,000 tweets related to a given stock symbol that were then analyzed for their sentiment using the TextBlob library and stored within an SQL database
- Ran regressions on the collected sentiment with its corresponding stock price using Matplotlib, NumPy, and pandas