# Shuaib Ahmed

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#### **EDUCATION**

University of California, Davis

Davis, CA

B.S. in Computer Science (GPA: 3.94)

Expected Graduation: June 2025

• Relevant Coursework: Programming & Problem Solving, Data Structures & Algorithms, Discrete Math, Linear Algebra

#### WORK EXPERIENCE

### Undergraduate Research Assistant @ UC Davis (PI: Dr. Zubair Shafiq)

June 2023 - Present

- Research in using parallel web-scraping and ML in order to extract web ads and create an ad observatory for the entire web
- I perform extensive web-based internet measurements to investigate and enhance web dynamics.
- Utilizing filter listing requests and image matching to simultaneously extract web ads from multiple sites.
- My optimization approach added a heuristic condition to filter for image and video request types, resulting in an 80% reduction in false positives.
- Verified the technique on over 15 websites, achieving accurate extraction of ads from over 90% of the platforms.

#### Lead Software Developer @ CodeLab - Software Development Agency

Oct. 2022 – Present

- Leading team of 10 developers to create an application for Volt, an industry client, displaying company trends and statistics
- Utilized cutting-edge technologies to implement a backend powered by a FastAPI server in Python and PostgreSQL managing over 2000 data entries, and a React frontend application with JavaScript
- Oversaw the creation of API endpoints for functions such as returning dashboard data, specific customer data, and report generation, displaying over 1500 points of company statistics
- Technologies: React.js (Vite), Python, FastAPI, PostgreSQL, AWS Lambda, Javascript, Jira, Notion

## Co-founder/Lead Developer @ TimeSync - Scheduling App ( GitHub: /TimeSync )

Apr. 2023- Oct 2023

- Led a team of 2 software engineers to develop a full stack application with daily development meetings
  - Released application as beta, providing scheduling services to 23 users across 5 organizations
  - Implemented advanced optimizations, including event descriptions, customizability, server optimization processes that increased API endpoint communication speed and data transfer speed to the database by 25%
  - Accepted into StartUpDevKit 3-month accelerator program
  - Technologies: React.js, Python, Flask, MySQL, Heroku, Netlify, ClearDB

### **PROJECTS**

Vivid - Community Image Generation Application (GitHub: /Vivid | App : Vividbeta)

July 2023

- Developed a MERN web application, that efficiently converts user descriptions into images using DALL-E API
- Integrated Cloudinary API to manage and showcase user-generated images fostering community engagement.
- Ensured data persistence and retrieval through MongoDB database currently storing information on 20+ users & 35+ posts.
- Provided responsive user support, achieving a 95% user satisfaction rate by addressing feedback and issues promptly.
- Technologies: MongoDB, Express is, React is, Node is, Netlify, OpenAI API, Cloudinary API

### **SQL Query Generator** - *Natural Language to SQL converter* (GitHub: /SQL-Query-Generator)

May 2023

- Utilizes OpenAi's daVinci model to convert inputs into sql queries that can be used for large database management
- Improved application complexity with also including gpt-turbo-3.5 model increasing application performance by 15%
- Provided users with customizable query parameters, enhancing versatility and drastically cutting average query development times by almost 50%, especially when dealing with large databases and query insertions/extractions
- Technologies: ChatEngine, Redux Toolkit, RTK Query, Node.js, Express.js, OpenAI API

### RMP Extension - Schedule Builder Extension for UC Davis students (GitHub: /RMP-Extension)

April 2023

- Led group of 3 engineers to design and develop a streamlined chrome extension which allows UC Davis students to view professor ratings, according to third party platform used for professor ratings
- Enhanced the extension's performance speed by over 15% through the implementation of efficient caching mechanisms, resulting in a significant improvement in program speed and increasing backend storage capacity to about 4,300 data points
- Technologies: Python, Javascript, HTML, Pandas Dataframes, API & cache implementation

## Heart Disease Classifier - Custom Logistic Regression Model (GitHub: /HD-Classifier)

June 20

- Implemented a logistic regression model to predict the presence of heart disease based on the Heart Disease UCI dataset
- Leveraged 14 diverse patient health features to curate comprehensive training/testing datasets, optimizing inputs utilized
- Demonstrated the effectiveness of the logistic regression model by achieving an accuracy of 0.81 on the training dataset.
- Engineered an input system enabling users to customize input features and obtain predictions based on custom inputs
- **Technologies:** Python, Pandas Dataframes, Numpy, Sklearn

# SKILLS / INTEREST