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

PROFESSIONAL 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
- Perform extensive web-based internet measurements to investigate, store, and analyze advertisement data on the internet.
- Utilizing filter listing requests and image matching to simultaneously extract over 200 advertisements from multiple sites.
- 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.

***Software Engineering Intern* @ [Volt](#)**   *Sept. 2023 – Present*
- Collaborating on a team of 10 to create an application displaying client trends, cost statistics, and revenue data.
- 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 entries 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.js, React.js, Node.js, 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 2023*
- 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

Languages: C/C++, Python, JavaScript, HTML, React.js,, Node.js, Linux/Unix, Java, Angular
Technologies: MySQL, Flask, PostgreSQL, Data Structures/Algorithms, Netlify, Heroku, MongoDB, Tensorflow, Numpy, API Management, REST API, Git, NoSQL, Microsoft Offices, Golang, Jira