

Abrar Syed

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EDUCATION

University of California, Davis

Davis, CA

Master of Science in Computer Science, GPA : 3.75/4.0

Sep 2022 – Present

- Relevant Coursework: Design and Analysis of Algorithms, Machine Learning (ML), Big Data, Software Engineering

SRM University, AP - Andhra Pradesh

Andhra Pradesh, India

Bachelor of Technology in Computer Science, GPA: 3.7/4.0

July 2018 – May 2022

- Relevant Coursework: Data Structures and Algorithms (C++), Object Oriented Programming (Java), Operating Systems

University of California, Berkeley

Berkeley, CA

Visiting Student (Semester Abroad Program), GPA: 3.8/4.0

Jan 2020 - May 2020

- Relevant Coursework/Skills: Applied Data Science with Venture Applications (Data-X), Database Management Systems (DBMS), Disruptive Technology and Social Impact Challenge Lab, Entrepreneurship

EXPERIENCE

Graduate Teaching Assistant

Sept 2022 – Present

University of California, Davis

Davis, CA

- Actively participated in weekly in-class meetings of about 25-30 students, fostering an interactive and inclusive learning environment.
- Led weekly office hours assisting students with coding challenges, debugging issues and project development in HTML, CSS and JavaScript.
- Assisted in grading web development projects, evaluating HTML/CSS layouts and JavaScript functions to ensure adherence to coding best practices and industry standards.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, SQL, HTML/CSS, JavaScript, Solidity

Frameworks: Flask, React.js, Node.js, Next.js, Semantic UI React

Developer Tools: Git, Github, Docker, VS Code, AWS, Jupyter, Google Colab

Libraries: NumPy, Pandas, Matplotlib, Beautiful Soup, scikit-learn, PyTorch, Seaborn

Databases: MariaDB, MySQL

PROJECTS

Travel4All | *Python, Flask, HTML, CSS, Beautiful Soup, Pandas, Numpy, Mapbox, Amadeus API, Google Maps API*

- Collaborated with a cross-functional team of 5 to develop a data-driven route recommendation system for budget-conscious travelers, enhancing convenience and reducing costs.
- Leveraged **Amadeus** and **Google Maps APIs** to extract flight data from over 400+ airlines and driving routes respectively, allowing for the calculation of comprehensive trip costs with an accuracy rate of 95% or higher.
- Designed and developed a full-stack web application using **Flask**, **HTML**, **CSS** and integrated **Mapbox** for interactive mapping, resulting in a user-centric, cost-effective travel recommendation platform.

Environmental Justice Mapping | *Flask, SQL (MySQL), HTML, CSS, MariaDB, Docker*

- Developed **Flask**-based web application that maps and analyzes data on California's Cap and Trade program and GGRF funding, emphasizing environmental justice impacts over 8057 census tracts and 58 counties.
- Utilized **Docker** containers and **MariaDB** for efficient deployment and management, reducing application response time by 40% and enhancing application performance.
- Applied advanced techniques, such as normalization by using **SQL** queries, to analyze an extensive dataset with 8000+ records resulting in a 25% improvement in data retrieval efficiency.

CrowdCoin | *Semantic UI React, React.js, Next.js, Node.js, Metamask, Solidity, Ethereum*

- Implemented a blockchain-based solution to enhance traditional crowdfunding by enabling direct peer-to-peer connections between project creators and backers, improving user experience and campaign success rates.
- Contributed to the development and deployment of **Ethereum** smart contracts using **Solidity** and **Node.js** on the back-end, ensuring transparency and reliability in financial transactions.
- Leveraged **MetaMask**, **React**, **Semantic UI React**, and **Next.js** to create a user-friendly front-end interface, with the goal of optimizing user engagement and facilitating seamless interactions.
- **Other Projects:** Large Language Models (LLM) as Polling Participants in Qualitative Research, Predicting Next Day rain in Australia using ML techniques, Intrusion Detection using ML techniques

CERTIFICATIONS

- **AWS Knowledge:** Cloud Essentials Issued by Amazon Web Services (AWS) Training and Certification (2024)