Abrar Syed

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EDUCATION

University of California, Davis

Davis, CA

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

 $Expected:\ December\ 2024$

• 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, Object Oriented Programming, Artificial Intelligence, Data Mining

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, supporting a positive 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 to ensure adherence to coding best practices and industry standards.
- Courses TA'ed for: DES 117 Interactive Media I, DES 157A Interactive Media II, DES 157B Interactive Media III

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

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

- Developed a route recommendation system to help budget conscious travelers find the most cost-effective routes from their home to destination, optimizing both flight and road travel routes.
- 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 a higher accuracy rate.
- Designed and built 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 and enhancing application performance.
- Applied advanced techniques, such as normalization by using **SQL** queries, to analyze an extensive dataset with 8000+ records resulting in an 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)