

# Abrar Syed

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## EDUCATION

### University of California, Davis

Davis, CA

Master of Science in Computer Science (GPA: 3.71)

Expected Graduation Date: June 2024

- Relevant Coursework: Design and Analysis of Algorithms, Big Data, Distributed Database Systems

### SRM University, AP - Andhra Pradesh

Andhra Pradesh, India

Bachelor of Technology in Computer Science (GPA: 3.7)

Graduation Date: May 2022

- Relevant Coursework: Database Management Systems, Operating Systems, Probability and Statistics, Machine Learning
- Organizations/Awards: IEEE Student Branch, First Class with Distinction(Top ~ 10%), Semester Abroad Program Scholarship(\$19,900)

### University of California, Berkeley

Berkeley, CA

Semester Abroad Program (GPA: 3.8)

Graduation Date: May 2020

- Relevant Coursework/Skills: Data-X, Challenge Lab, Entrepreneurship, Team Dynamics, Project Management

## PROJECTS

[github.com/abrar-syed](https://github.com/abrar-syed)

### Travel4All

- Collaborated as a key team member within a cross-functional team of 5 to successfully develop a route recommendation system for budget-conscious travelers, applying a data-driven approach to streamline travel choices, enhance user convenience, and reduce 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.
- Contributed to the design and development of the web application using **Flask, HTML and CSS**, enabling users to input travel preferences, budget constraints, and trip logistics, resulting in a cost-effective travel recommendation system with interactive map displays for enhanced user experience.

### Environmental Justice Mapping

- 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 for efficient deployment and management, reducing application response time by 40% and enhancing application performance.
- Applied advanced techniques, such as normalization and **SQL** queries, to analyze an extensive dataset with 8000+ records resulting in a 25% improvement in data retrieval efficiency.

### CrowdCoin

- Implemented an innovative blockchain-based solution that addresses the limitations of traditional crowdfunding platforms by establishing a direct peer-to-peer connection between project creators and backers aiming to enhance user experience and potentially increase campaign success rates.
- Contributed to the development and deployment of **Ethereum** smart contracts on the back-end, ensuring transparency and reliability in financial transactions.
- Leveraged **Web3, MetaMask, React, Semantic UI, and Next.js** to create a user-friendly front-end interface, with the goal of optimizing user engagement and facilitating seamless interactions.

## RESEARCH EXPERIENCE

### SRM University, AP - Andhra Pradesh

Andhra Pradesh, India

Undergraduate Researcher

Jan 2021 – May 2022

- Collaborated with a team of 3 members under my advisor Dr. Priyanka on the "**Reversible Data Hiding Scheme**" project for enhancing medical image security and integrity in the Internet of Medical Things (IoMT).
- Conducted a literature review of 7+ papers identifying challenges in existing techniques that led to the proposal of an innovative RDH scheme.
- Played a vital role in developing the model using **MATLAB**, achieving an average imperceptibility of 37dB for various test medical images and an accuracy of ~ 99% in recovering the images upon tampering.

## HACKATHONS AND CONFERENCES

- Attended **SF DeveloperWeek Hackathon** with over 2000+ attendees. Built **FUSION**, which automated DSLR camera tasks using Canon PowerShot camera with Canon Camera Control API. (2020)
- Attended **Google Developer Group(GDG) DevFest** with over 1000+ attendees organized by **GDG Hyderabad**. (2019)

## TECHNICAL SKILLS & INTERESTS

**Programming Languages:** Python | C/C++ | Java | SQL | Flask | HTML | CSS | JavaScript | Solidity | MATLAB

**Tools & Technologies:** Docker | Linux | Git | NumPy | Pandas | Github | Jupyter Notebook | React.js | Next.js | Semantic UI

**Interests:** Cloud Computing, DevOps, Blockchain, Web Development