

Vedant Amin

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Bachelor of Science & Master of Science in Computer Science

GPA: 3.3/4.0

August 2019 - December 2024

Threads: Information Internetworks & Intelligence

- **Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Database Systems, Computer Organization & Programming, Artificial Intelligence, Machine Learning, Computer Vision, Computer Networking
- **Extracurriculars:** Google Developer Student Clubs, Big Data Big Impact, BAPS Fellowship
- **Certifications:** AWS Cloud Technical Essentials (AWS), Programming with JavaScript (Meta), Advanced React (Meta)

EXPERIENCE

KemNu Inc.

Atlanta, GA

Software Engineer Intern

June 2021 – August 2021

- Used **React Native** to build the frontend of the KemNu Ads application.
- Employed **Google Firebase Realtime Database** to post and retrieve user's event data, decreasing response times by approximately **38%**.
- Developed activity posting, custom Calendar UI and functionality, group chat interface, and points/rewards features to the KemNu web application using **React.js** coupled with **MaterialUI** and **Day.js** libraries.
- Oversaw and implemented the design for the Event Registration and Group Chat components of the user interface to allow **50+ organizations** and **800+ members** to sign-up for events and communicate within the application.

Georgia Tech Research Institute (Automotive LiDAR Team)

Atlanta, GA

Undergraduate Student Researcher

August 2021 – May 2023

- Designed an automotive LiDAR system in **ROS 2.0** and **Python**, integrating real-time data processing, obstacle detection, and avoidance algorithms, enabling level four autonomous driving.
- Employed and tested **path-planning algorithms**, such as **A* search** and **Dijkstra's**, reducing path length by **20%**.
- Designed and implemented new **wiring solutions** and **mountings** to streamline connections and minimized signal interference by **72%**.
- Collaborated with mechanical and electrical sub-teams to ensure seamless integration of the LiDAR system into the vehicle's control architecture, leading to a **15% improvement** in vehicle responsiveness and efficiency.

PROJECTS

NBA MVP Predictor | Python, Pandas, Scikit-learn, Matplotlib

January 2023

- Employed web scraping techniques using **BeautifulSoup** and **Selenium** to gather comprehensive data on NBA MVPs, players, and team standings from 1991 to 2023.
- Utilized **Pandas** to clean the collected datasets and used **Matplotlib** to create informative graphs, identifying correlations between various data columns and their impact on MVP Shares.
- Developed machine learning models using **scikit-learn** employing **Linear Regression Ridge** and **Random Forest Regressor**, achieving an **85%** accuracy in forecasting the top 5 players with the highest MVP Shares each year.

Travel Advisor | React.js, Material UI, AWS Amplify

July 2022

- Developed a webpage using **React.js** that provides information on nearby restaurants, hotels, and attractions.
- Leveraged **Google Maps and Places API** to accurately determine the user's location and **fetch** location-specific data.
- Designed a responsive **Material UI** based interface for an improved user experience across devices.
- Deployed the application using **AWS Amplify** for seamless scalability and efficient hosting.

SKILLS

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

Software/Applications: React.js, Git, Docker, AWS, Google Firebase, Linux, React Native, NumPy, Pandas

Languages: English (native), Gujarati (native), Hindi (fluent)