

Rachit Agarwal

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EDUCATION

The University of Texas at Arlington - May 2022
B.S. in Computer Science

Maverick Scholar

Coursework: Object-Oriented Programming, Algorithms and Data Structures, Operating Systems, Software Engineering, Artificial Intelligence, Computer Organization, Discrete Structures, Linear Algebra, Computer Networks

Skills: Python, C/C++, JavaScript, Java, PHP, HTML/CSS, MongoDB, MySQL, Postgres, Content management system, Flask, Pandas, Docker, React, Django, Socket.io, Git, Splunk, AWS(Lambda, EC2, S3), MATLAB, Adobe Suite

WORK EXPERIENCE

UTA Autonomous Robotics Laboratory

Arlington, TX

Undergraduate Research Assistant

September 2021 - Present

- Worked on **ROS** Integration on **Jetson TX2**, an **NVIDIA AI** platform for self-driving car model.
- Used **Lidar**, **ZED Stereo camera** data inputs and designed Deep Learning Network with an accuracy of 84%.

Ripple

San Francisco, CA

Software Engineering Intern

May 2021 - September 2021

- Built a browser extension using **JS** and **Spring boot** to convert the crypto-currency into traditional currency which leveraged **XRPL** for real-time gross settlement system as part of Ripple Innovate.
- Worked over API to synchronize Slack with Google Suite for real-time updates over Gmail/Google calendar to increase the user engagement by 64%.
- Built a logging and monitoring dashboard for SaaS applications using **Grafana** and **Prometheus** (Time series database).

Innovative Data Intelligence Research Laboratory

Arlington, TX

Undergraduate Research Assistant - Funded by HP, Google, and National Science Foundation

July 2020 - Present

- Worked with **Dr. Chengkai Li** to build multiple internal applications for live fact-checking tool, **Claimbuster**, using **Python** which fetches data from various sources and updates their response in **JSON** and **PostgreSQL**.
- Designed and developed a **RESTful API** for researchers to query IDIR's web-apps using **Flask** to fetch political posts and comments. Improved the reading and storage efficiency by 27%.

Success Marketing

Kota, India

Technical Product Manager intern

May 2019 - August 2019

- Worked as a web developer to build a fast and scalable website to facilitate and increase sales by adding information and images of inventory which improved their market reach by 35%.
- Increased the company's visibility globally by creating a web application using **React**, **CSS**, and **Google APIs**.

SELECTED PROJECTS

YoDash - 1st/74 Teams + Best use of NLP - HackDFW 2021

Dallas, TX

Web Application to analyze ESG investments using natural language processing and statistical computation

Fall 2021

- Developed a sentimental analysis model using **NLTK sentiment vader** and **Amazon's Comprehend** to analyze unstructured data on social media to assess bias over Stocks and ETFs based on Environment, Social, and Governance.
- Organized a **data-lake** to run **big data analytics** over 700,000 tickers and ETFs on **AWS Lambda**.

Supply Spot - YHacks 2020

Yale University, CT

Web Application for hospitals to find blood donors on-demand or in case of emergency by sending alerts

Fall 2020

- Developed using **Python**, **Flask**, **Socket.io**, **CSS**, and **HTML** for synchronized communication.

MavAstra - 1st/42 Teams + Best Mobile App | Team Lead

UT Arlington, TX

A super-app that helps students to manage their college life with ease

Fall 2020

- Built cross-platform mobile app using **Java**, **XML**, **React Native** with extensive use of **JavaScript** on the front-end.
- Utilized **Stripe's API** to manage payments and **Google OAuth** for authentication to maximize user convenience.

Finviser - HackTX 2019

UT Austin, TX

A fully functional Web App for students to manage their personal finances

Fall 2019

- Built using **MongoDB**, **React**, **Python**, and **Flask** and deployed to **Heroku**.
- Created a finance advisor chatbot with **IBM Watson AI on Bluemix**, **IBM's cloud service** with **Slack's API**.

LEADERSHIP EXPERIENCES, ACTIVITIES, AND AWARDS

Co-Founder, Cyclotrots

May 2013 - Fall 2018

- Started and managed a cycling community in the city of Kota, Rajasthan. 1200+ active members as of August, 2020.
- Led 2 month-long city sanitation campaign spanning 5 km^2 which cleaned 45% of roads of that suburb of Kota.

Excel Campus Activities

January 2019 - Present

- Programmed EXCEL's participation in New Maverick Orientation, University Preview Days, and Activity Fairs.
- Co-Managed the annual budget of ~\$200,000 to develop and organize events like Halloween casino night, Homecoming street festival, Bed Races, Welcome Bash, and MavsMeet across the campus as part of the programming committee.

Maverick Scholarship recipient - (Covering 90% of the tuition for 4 years)

August 2018 - Present

Academic Excellence Award by the Times of India - (Rewarded to the top 2% students of the country) *Fall 2016*