

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

Branch.gg

Founding Software Engineer – Seed stage Web3 start-up

Seattle, WA

January 2022 – May 2022

- Built a **browser-based cross-platform social Play-to-Earn** game using **C, WASM, Unity, and React/ts**, the core product of the company. All from zero to one.
- Designed and implemented database architecture using **AWS/DynamoDB** along with **CI/CD/Terraform** pipelines on GitHub Actions to support the foundational data storage needs of the game.
- Integrated telemetry using **Twilio/SendGrid/Segment/Amplitude** APIs to track user behavior and retention.
- Developed the product roadmap for the games economics and tokenomics by researching optimal (Speed+Cost per transaction) blockchain (Solana/Polygon/Ethereum).

Ripple

Software Engineering Intern

San Francisco, CA

May 2021 – September 2021

- Built a browser extension using **JavaScript** 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**.

Innovative Data Intelligence Research Laboratory

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

Arlington, TX

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**.
- Improved the reading and storage efficiency of **RESTful APIs** and **PostgreSQL** by 27% for researchers querying IDIRs web-apps using **Flask** to fetch political posts and comments.

SELECTED PROJECTS

EquiMed - 1st/86 Teams + Best use of Blockchain - HackDuke 2021

Duke University, North Carolina

EquiMed is a platform that allows individuals and businesses to have anonymous and fair access to healthcare Fall 2021

- Generated a new token, Univest, over **ERC-20** using **solidity** which we used to do transactions over **MetaMask** and swap it over **Uniswap** to trade with ERC-20 compliant coins. Built the back-end using **Python** and **CockroachDB**.
- Donated the entire reward sum to a humanitarian medical non-governmental organisation "Doctors Without Borders".

YoDash - 1st/90 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**.

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

Yale University, CT

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.

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 96% 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