Amrit **Rathie**

SOFTWARE ENGINEERING INTERN

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Projects

Septre Insights | Diagnose 7 diseases with a smartphone

HackUTD VIII

HackUTD - LARGEST UNIVERSITY HACKATHON IN TEXAS
Nov 2021

- Built PyTorch Machine Learning dataset by
- Used ML model to diagnose 7 different diseases, including diabetes and glaucoma, using digital fundoscopy with over 85% accuracy.
- Developed Vue.js Frontend and Swift Mobile App connected to Flask API with PostgreSQL Backend.

Degree Planner | Drag and drop degree planner app for UTD courses

The University of Texas at Dallas

UTD NEBULA - STUDENT ORGANIZATION CREATING OPEN SOURCE SOFTWARE FOR STUDENTS
Fall 2022

- Implemented Course Validation functionality, allowing users to verify their class schedule.
- Contributed Degree Plan Validation functionality, enabling automatic auditing of a degree plan without an advisor.
- Mentored a group of 4 students on frontend technologies HTML/CSS/JS, TypeScript, and Next.js.

Comparison of Swarm Robotics Algorithms | Cooperation of a swarm of simple robots

The University of Texas at Dallas

ACM RESEARCH - 12-WEEK RESEARCH COMPETITION
Fall 2021

- Compared 3 algorithms for controlling robotics with decentralized control and cooperation.
- Designed simulation to collect behavioral data of robots performing resource collection tasks using C++ and Unreal Engine.
- Analyzed simulation data for statistical differences using Pandas and visualized data for presentation using Seaborn.
- Presented at the Biannual ACM Research Symposium.

Professional Experience

ObjectWin, Inc.

Houston, Texas

MOBILE APPLICATIONS DEVELOPER - SUMMER INTERNSHIP
Jun 2020 - Aug 2020

- Developed mobile application for time-sheet entry using Ionic.
- Collaborated with a global team to connect frontend components written in AngularJS with SQL Server database.
- Ameliorated time-sheet entry for consultants at tech consulting company.

Skills

Programming Languages	Rust, Python, SQL, JavaScript, Go, Java, Bash, C, C++, Haskell, LaTeX, MIPS & ARM Assembly
Tools and Platforms	Linux, Docker, Git, Ansible, Kubernates, Cloudflare, AWS, PostgreSQL
Libraries	Numpy, Pandas, Seaborn, Flask, FastAPI, Jinja2, Gin, Go Template, Vue/Nuxt, React/Next, Rocket, Tokio
Languages	English (native), Hindi (elementary), Marathi (conversational), American Sign Language (elementary)

Education

The University of Texas at Dallas

Richardson, Texas

B.S. IN COMPUTER SCIENCE
2021-2025

- Academic Excellence Scholarship Recipient.

Grapevine High School

Grapevine, Texas

HIGH SCHOOL DIPLOMA
2017-2021

- Vice-President of Advanced Academics Student Club.
- Flute Section Leader in Marching Band.
- TFA State World-Schools Debate competition finalist.

Awards

COLLEGE BOARD

2020	**National AP Scholar**, Grapevine High School	*Grapevine, Texas*
2019-2021	**AP Scholar with Distinction**, Grapevine High School	*Grapevine, Texas*

BAND

2019 **Director's Choice**, Grapevine High School Band *Grapevine, Texas*