Rishabh Parekh

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EDUCATION

THE UNIVERSITY OF TEXAS

BS | ELECTRICAL AND COMPUTER Engineering, Honors

Junior | May 2022

Cum. GPA: 4.0 / 4.0

COURSEWORK

Software Design I/II: C/C++/Java Data Science Principles Digital Image Processing (in progress) Operating Systems (in progress) Algorithms **Embedded Systems** Probability and Random Processes Linear Algebra Discrete Mathematics

SKILLS

PROGRAMMING

Java Python C++ C MATLAB HTML5/CSS3 JavaScript Assembly React PyTorch

SOFTWARE TOOLS

Automation Anywhere Linux Git Autodesk Fusion 360 (CAD Modelling) Autodesk Eagle (PCB Design) AWS Cloud ML Arduino Agile (Scrum)

EXTRACURRICULAR

UT SEEK

Mentor for 20 students at local Austin elementary schools to raise awareness of higher education and engineering.

NARNARAYAN DEV YUVAK MANDAL Houston Chapter Head, increasing weekly turnout 4x by implementing streamlined marketing strategies. Virtual Camp Director, heading a virtual cultural camp for 500+ attendees from US, UK, AUS, NZ, Canada, and Kenya.

TABLA (SOUTH ASIAN CLASSICAL PERCUSSION INSTRUMENT)

Record, edit, and publish cross-cultural fusion covers of songs on Instagram. Performed at Houston Children's Museum and Houston Miller Outdoor Theater.

EXPERIENCE

FLAPMAX | SOFTWARE ENGINEERING INTERN

July 2020 - September 2020 | Austin, TX

- Refactored anomaly detection algorithm to run 73% faster while improving modularity using vectorization and caches.
- Innovated on a natural language processing web application using JS, React, jQuery, Python while testing Flask APIs on Postman.
- Designing a front-end for a video analytics dashboard using JS, React, and Ajax.

AT&T | Software Engineering Intern

Jun 2017 - Aug 2017 | Houston, TX

- Reduced costs by \$2,450 (6%) with Robotic Process Automation to cutting cycle time by 35 hours, increase client focus, and decrease processing errors.
- Streamlined client feedback by merging organization's 2 sites to enhance the user's experience.
- Accurately merged two data-tracking systems by inspecting a 500K-point data set to reduce bot-history conflicts.

PROJECTS

SAFETY DEVICE EXTENSION FOR CHEVRON

Python, PyGame Graphics

- Devised and programmed a model for Chevron to direct at-risk employees away from a gas leak to the nearest uncontaminated safe-spot.
- Adopted by Chevron for a future 2020-2021 project with \$850,000 in requested funding.

CHAT APPLICATION

Java, Socket Programming, Multi-Threading, JavaFX

- Designed a real-time chat application to communicate with unlimited number of people by connecting to a host's IP Address.
- Currently adding file-sharing and multi-language features with multi-platform capability.

POKÉDEX USING MACHING LEARNING

Python, PyTorch, Fast.ai, Flask, Flutter

- Developed a image classifier to detect and show details of the four classic Pokémon with 98.2% accuracy.
- Deployed model in both a web application form and an Android mobile application form.

SPACE SHOWDOWN VIDEO GAME

C++, TM4C Microcontroller, LCD Display, DAC, ADC, Interrupts

- Soldered and programmed a handheld, 2D multiplayer shooting game integrating both hardware and software.
- Recognized by Professor and TAs, receiving 2nd place in the class for game design and implementation.

SORTING AND GRAPH ALGORITHMS VISUALIZER

HTML, CSS, JavaScript, React

- Built React/Redux application for visualizing sorting and graph traversal algorithms.
- Implemented Bubble Sort, Merge Sort, Selection Sort, Insertion Sort, BFS Traversal, DFS Traversal, and Dijkstra's Algorithm.