

# Rishabh Parekh

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## EDUCATION

### THE UNIVERSITY OF TEXAS BS | ELECTRICAL AND COMPUTER ENGINEERING, HONORS

Junior | May 2022

GPA: 4.0 / 4.0

### COURSEWORK

Software Design I/II/Lab: C/C++/Java  
Data Science Principles  
Digital Image Processing  
Operating Systems  
Algorithms  
Embedded Systems  
Probability & Random Processes  
Linear Algebra  
Discrete Mathematics

## SKILLS

### PROGRAMMING

Java Python C++ C  
Flask React PyTorch  
Linux Git Google Cloud  
MATLAB JavaScript

### SOFTWARE TOOLS

Automation Anywhere (RPA)  
Autodesk Fusion 360 (CAD Model)  
Autodesk Eagle (PCB Design)

## OTHER EXPERIENCE

### TEACHING ASSISTANT

for Intro to Embedded Systems;  
~330 students.

### UT SEEK

Mentor for 20 students  
at Austin elementary schools.

NARNARAYAN DEV

YUVAK MANDAL

Houston Chapter Head

increasing weekly turnout 4x.

Virtual Camp Director

for 500+ international attendees.

TABLA (SOUTH ASIAN  
PERCUSSION INSTRUMENT)

Performed at Houston Children's  
Museum and the Houston  
Miller Outdoor Theater.

## EXPERIENCE

### FLAPMAX | SOFTWARE ENGINEERING INTERN

Jul 2020 – Aug 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.

### ENERGY VENTURES PRIVATE EQUITY | BUSINESS ANALYST INTERN

Jul 2019 – Aug 2019 | Houston, TX

- Reported on 900+ clean tech funds' internal rate of returns to plan the firm's objective of diversifying from oilfield services.
- Drafted 45-slide investment memo for a \$6M deal with market research and various financial analyses for Investment Director.
- Created a distribution waterfall (carried interest) model of a \$10M investment, in keeping with the applicable fund terms.

### 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 2020-2021 project with \$850K in requested funding.

### AIRTOUCH

Python, OpenCV, Haar Cascade Classifier - [Code](#), [Demo](#)

- Designed a real-time virtual whiteboard using depth camera, Haar Cascade Classifier, and principle digital image processing.
- Received the *Ram's Horn Best Project Award* for digital image processing class.

### POKÉDEX USING MACHING LEARNING

Python, PyTorch, Fast.ai, Flask, Flutter - [Code](#), [Demo](#)

- 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 - [Code](#), [Demo](#)

- 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.