

# Viraj Joshi

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## EDUCATION

### UT AUSTIN

**MS IN COMPUTER SCIENCE**

GPA: 4.00 / 4.00

December 2023 | Austin, TX

**BS IN COMPUTER SCIENCE**

**BS IN MATHEMATICS**

Cum. GPA: 3.84 / 4.00

May 2022 | Austin, TX

Awards: GE STAR Scholarship

## LINKS

[github.com/Viraj-Joshi](https://github.com/Viraj-Joshi)

[linkedin.com/in/viraj-joshi314](https://linkedin.com/in/viraj-joshi314)

## COURSEWORK

### GRADUATE

Deep Learning

Operating Systems

Optimization

Online Learning

Reinforcement Learning

### UNDERGRADUATE

Algorithms and Complexity

Artificial Intelligence

Applied Statistics

Data Structures

Differential Equations

Intro to Mathematical Statistics

Intro To Quantum Info. Sci. (Honors)

Intro To Stochastic Processes

Numerical Analysis

Partial Differential Equations

Predictive Analytics

## SKILLS

### PROGRAMMING

Python (PyTorch) • R • C++

• React • Java

## PROGRAMS

### SWE SUMMIT | CAPITAL ONE

May. 2019

### CSSI-COURSERA | GOOGLE

May 2018 - Jan 2019

## RESEARCH

### UT LARG LAB Fall 2023

- Tentative thesis under Professor Stone researching how to leverage language models in reinforcement learning toward sample-efficient policies

### UT CVC LAB GRADUATE RESEARCH ASSISTANT

Jan 2022 - Sept. 2022

- Completed an independent study on prophet inequalities and robust statistics
- Researched sample-efficient methods of adversarially training neural networks and variational auto-encoders with Professor Chandrajit Bajaj

## EXPERIENCE

### AMAZON | SOFTWARE DEVELOPMENT ENGINEER INTERN | ALEXA AI

July 2021 - Oct. 2021

- Designed and implemented lasting functionality to aggregate metrics on localization of Alexa features leading to the deprecation of legacy processes and improving customer's ease of use
- Exposure to full end-to-end Amazon software development cycle with the creation of customer-facing UI wired to back-end APIs hosted on AWS Lambda
- Technologies Used:
  - Tech: Python (Backend), React / Javascript (Frontend), Enzyme / Jest / Pytest (Testing), Balsamiq (Wireframing)
  - AWS: API Gateway, DynamoDB, EC2, Lambda, Cloudwatch, CDK, Code Pipeline

### CAPITAL ONE | DATA ENGINEERING INTERN

Jun 2020 - Aug. 2020

- Visualized and quantified Risk Control Assurance by building an ETL pipeline, Python-Flask microservice, and UI with directed graphs and metrics
- Utilized AWS (Neptune, Gremlin), Python, React, G6.js, Plotly.js, Jenkins, Scrum/Agile development
- Buy in/Interest from SVPs, VPs, Senior Directors, Directors

### ANALYTICS ADVISORY GROUP, LLC | DATA SCIENCE INTERN

June 2019 - Aug 2019

- Augmented the ability to demo to multiple clients how our application on an Amazon Echo Show simplifies BI-related queries to their databases by automating the generation of realistic clinical data unique to each provider
- Accomplished through a web-app/RESTful API (React, MS SQL Stored Procedure, Express, Elastic Beanstalk)

## PROJECTS

### MLDS CLUB COMPETITIONS Jan. 2020 / Jan. 2021

- Ensembled supervised learning models and won 2nd and 3rd place at competitions hosted by the UT MLDS Club and Microsoft

### PYSUPERTUXKART Aug 2022

- Created an OpenAI gym environment for PySuperTuxKart and tuned model-free Reinforcement Learning algorithms using StableBaselines3 to compete in Ice Hockey