

Rohan Moniz

973-508-5889 • rmoniz@seas.upenn.edu • linkedin.com/in/rohan-moniz/ • rohanmoniz.com

Education

University of Pennsylvania, Philadelphia, PA

B.S.E. in Computer Science

Expected May 2025

Cumulative GPA: 3.83/4.00

Relevant Coursework: Data Structures and Algorithms, Scalable and Cloud Computing, Computer Systems, Software Design/Engineering, Advanced Linear Algebra, Discrete Math, Probability, Statistical Inference, Operating Systems*, Analysis of Algorithms*, Databases*, Artificial Intelligence* (* denotes Fall 2023)

Technical Skills

Languages: Python, Java, C++, C, Golang, JavaScript/TypeScript, HTML/CSS, OCaml, R, LaTeX

Frameworks/Tools: Django, Flask, React, Node.js, Express, Docker, Jenkins, AWS (EC2, S3, DynamoDB), MongoDB, Apache Kafka, Solr, Spark, Presto, Superset, Git, Jira, Microsoft Office Suite

Experience

Bloomberg L.P., New York, NY

May 2023 – August 2023

Software Engineer Intern

- Designed and implemented an ETL pipeline using **C++** to stream, process and load 200M+ position updates daily from **Kafka** and other sources into **Solr** cloud for data discovery and visualization on the Bloomberg terminal
- Provided TOMS clients and internal users with a faster and more streamlined method to identify firms with positions in a list of securities and other position-level metrics

Penn Labs, Philadelphia, PA

February 2023 – Present

Backend Developer

- Develop and improve the **Django** backend API for Penn's official club platform, ensuring over 1,200 student organizations have a seamless experience with recruitment, member management, and communication
- Collaborate on Penn Course Search, a tool that enables students to explore classes with sub-100ms response times and gain insights into their coursework; supports full-text fuzzy and prefix search along with rich query syntax

Roku, Inc., San Jose, CA

May 2022 – August 2022

Software Engineer Intern

- Built an automated validation framework using **Python** for Automatic Content Recognition (ACR) and Dynamic Linear Ad insertion (DLA), core advertising technologies for Roku's \$2B+ platform business
- Leveraged Roku OS infrastructure to regularly run ACR validation framework across 10 TV platforms with 1,000+ models between them, ensuring ACR is not impacted by firmware releases and maintaining business continuity

Projects

Content Recommendation System

February 2023 – July 2023

Python, Golang, Doc2Vec, FastAPI, Redis, MongoDB, Docker

- Architected and created a scalable, real-time content recommendation system incorporating 80,000+ articles to increase user engagement and revenue for The Daily Pennsylvanian, Penn's independent student newspaper
- Single-handedly implemented optimizations resulting in over 100x end-to-end latency boost from previous system

PennBook

November 2022 – December 2022

Node.js, Express, Spark, DynamoDB, EC2, S3

- Built a Facebook-like social media application allowing users to post, comment, like, send instant messages to other users, and receive recommendations via an adsorption algorithm

VapeEscape

June 2019 – July 2020

Swift, Python, Raspberry Pi, Arduino

- Developed an affordable and practical solution for schools and businesses to be notified of vaping or smoking in unauthorized areas, such as bathrooms, as part of a four-person team
- Built a basic iOS app alert notification system connected to the Raspberry Pi-based prototype
- Won "Eliminating and Reducing Teen Vaping" category and Global Collaborator team awards at the 2019-20 Conrad Challenge, a global STEM innovation competition