

# Arsh Banerjee

Candidate for an M. Eng in Computer Science at Cornell University. Passionate about solving complex problems through the application of machine learning. Demonstrated success in innovative projects and internships focusing on the practical deployment of these technologies to address real-world challenges.

## Experience

### Verizon, Branchburg, NJ — *Software Engineering Intern*

June 2023 - August 2023

Proposed and implemented scalable solutions to automate performance checks of the devices that are the backbone of Verizon's network using SQL and Restful APIs. Collaborated with other team members to deploy code to ensure network health and create visualization tools tying together different databases

### Verizon, Basking Ridge, NJ — *Software Engineering Intern*

June 2022 - August 2022

Created a system for the coordinated driving of robots based on computer vision. Designed an end-to-end computer vision pipeline to track multiple objects to allow for seamless movement of robots, with AI model and related computing deployed on AWS.

### NJIT iXR Lab, Newark, NJ — *Data Analytics Intern*

June 2019 - August 2019

Used machine learning and data analytics tools (Python & R) to analyze data from mixed reality (XR) applications to aid in the design of gaze-contingent displays for gaming and social applications for the Interactive Cross-Reality Lab research team

## Education

### Cornell University — *M. Eng in Computer Science*

August 2024 - May 2025

### Princeton University — *B.S.E. in Computer Science*

September 2020 - May 2024

Magna cum laude, Minors in Optimization and Quantitative Decision Science, Statistics and Machine Learning, and Cognitive Science

Course Assistant for COS 445 (Economics and Computing)

### Bayonne High School

September 2016 - June 2020

Valedictorian, National Merit Scholar, Student Gov. President

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## Skills

### Programming Languages:

Python, Java, Go, R, ROS, Matlab, SQL, C+

### Libraries & Frameworks:

OpenCV, Tensorflow, Keras, XGBoost, PyTorch, Pandas, Numpy, Git/Github, Linux, AWS

### Courses:

Computer Vision, NLP, Machine Learning, Data Structure and Algorithms, Optimization, Computer Graphics, Machine Learning with Social Data

## Awards

Intel Excellence in Computer Science Award - 2019

Fourth Place at Intel International Science & Engineering Fair - 2017

## Projects

### Detecting AI-Generated Images

Involved in the development of a tool for detecting AI-generated images from diffusion models

### Robotic Path Planning

A system that tracks multiple robots and changes their velocities autonomously

### Image Geolocation

Uses Computer Vision to perform geo-location

## Certifications

AWS Certified Developer Associate (DVA-C02) - Obtained July 2024