

# Aneesh Gupta

San Francisco, CA

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## EDUCATION

**Duke University** — *Bachelor of Science (Magna Cum Laude)*

Aug 2018 - Dec 2021

Major in Computer Science. Minor in Mathematics.

**GPA: 3.92/4.0**

**Coursework:** Algorithms, Computer Architecture, Discrete Math, Probability, Linear Algebra, Databases, Adv. Software Design, Applied Math, Combinatorics, ML, Artificial Intelligence, Sampling & Markov Chains

## WORK EXPERIENCE

**Nuro, Inc.**

Mountain View, CA

*Software Engineer* - Perception

Feb 2022 - Present

- Working on ML-driven improvements to the AV's perception and detection systems for rare objects.
- Writing onboard software modules (in **C++**) to detect critical incidents and initiate safety response.
- Responsible for building evaluation frameworks used to measure and iterate on ML model performance.

**Facebook, Inc.**

Menlo Park, CA

*Software Engineering Intern* - Networks Infra and Delivery Systems

May 2021 - Aug 2021

- Built a database schema *linting* service to analyze and validate data from networks and data-centers.
- Designing end-to-end API using **Thrift**, **Python**, and **PHP** to expose networks metadata to internal UI.
- Enhanced CI/CD and auditing frameworks to improve test coverage, and reduce false positive errors.

**ANB Systems, Inc.**

Houston, TX

*Software Engineering Intern*

May 2020 - Aug 2020

- Enhanced document recognition by improving Python image extraction algorithms accuracy by **75%**.
- Sped up data analysis and visualization by **3.5x** by building an **AWS Lambda** based ETL worker.

**Evidence for Policy Design - Harvard Kennedy School**

New Delhi, India

*Software Development Intern*

May 2019 - Aug 2019

- Built custom software packages using **Python** for data ETL between **SQL** servers and web application.
- Increased processing efficiency for social networks data by **80%** by using *fuzzy string-matching* algorithms.

**Dept. of Computer Science, Duke Univ.**

Aug 2019 - Dec 2021

*Teaching Assistant:*

Intro CS, Interdisciplinary Computing, Programming Interview Skills, Databases

## PROJECTS & PUBLICATIONS

**Genesis.AI:** Created a Text-2-Video GIF generator using opensource generative AI models (self-hosted). Made using Python, Modal, Svelte, Cloudflare, & Supabase. [Link](#) 🔗.

Dec 2023

**Transformers For Recognition In Overhead Imagery: A Reality Check**

[PDF](#) 🔗.

Francesco Luzi, Aneesh Gupta, Leslie Collins, Kyle Bradbury, Jordan Malof

WACV 2023

**Applied Machine Learning Lab - Undergraduate Researcher**

Aug 2019 - Dec 2021

- Tackling semantic segmentation for medical scans and satellite imagery using methods like encoder-decoder networks, vision transformers, and other image processing and machine learning techniques.
- Built a system to generate synthetic textures and model artificial cities realistically, to improve and produce richer training data to enhance generalisability of remote sensing models. [Link](#) 🔗.

## SKILLS

**Programming Languages**

Python, C++, Java, JavaScript, Scheme, R, SQL

**Frameworks & Tools**

Mongo, PyTorch, Django, React, Git, CI/CD, L<sup>A</sup>T<sub>E</sub>X, Pandas, NumPy

**Interests**

History, Tech and Policy Development, Philosophy, Computer Vision, Graphics