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

- Driving architectural and data improvements to the AV's ML models to help improve rare object detection.
- Writing onboard modules to detect onroad incidents and initiate human-in-the-loop safety responses.
- Designing evaluation metrics, frameworks, and pipelines to measure and gate ML model performance.
- Working as a 'breadth engineer' across the stack. Coding in **Python** (back-end/ML) and **C++** (onboard).

Meta, 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

Transformers For Recognition In Overhead Imagery: A Reality Check PDF ↗.
Francesco Luzi, **Aneesh Gupta**, *Leslie Collins, Kyle Bradbury, Jordan Malof* *WACV 2023*

Genesis.AI: Created a Text-2-Video GIF generator using opensource generative models. Dec 2023
Made this over a weekend using Python, Modal, Svelte, Cloudflare, & Supabase. ↗

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.
- Researched texture synthesis to enable geographic domain adaptation in remote sensing tasks. ↗

SKILLS

Programming Languages	Python, C++, Java, JavaScript, Scheme, R, SQL
Frameworks & Tools	Django, MongoDB, React, PyTorch, TF, Git, LaTeX, Pandas, NumPy
Other Interests	History, Economic Development, Philosophy, Computer Vision, Graphics