Aneesh Gupta

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EDUCATION

Duke University — *Bachelor of Science* Aug 2018 - Present
Electrical Engineering and Computer Science, Minor in Mathematics **GPA:** 3.97/4.0
Coursework: Data Structures & Algorithms, Computer Architecture, Discrete Math, Probability, Calculus, Linear Algebra & Differential Eqns., Software Design, Applied Mathematics
Involvements: Duke Impact Investing Group, Duke University DevOps committee

WORK EXPERIENCE

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 E.T.L pipelines between **SQL** servers and a mobile and web application. Deployed on AWS, as part of a randomized control trial.
- Created a dashboard in **R** to aid economists in quantitatively analyzing the impact of a policy intervention to measure women's smartphone access in rural India.
- Developed a software package and protocol from scratch to extract, clean, and map social networks data using *fuzzy string-matching*. Outperformed existing system efficiency by 80%.
- Sped up system testing & data retrieval by 5 times using **Selenium** drivers and headless browsers.

Department of Computer Science Durham, NC
Teaching Assistant Aug 2019 - Present

- Leading weekly lab sections, consulting hours, and assisting in grading examinations for Duke's *Introduction to Computer Science* and *Interdisciplinary Computing* courses.
- Helping students clear doubts and understand fundamental Computer Science concepts.

PROJECTS AND RESEARCH

Energy Data Analytics Lab Aug 2019 - Present
Undergraduate Researcher

- Investigating the use of deep learning, domain adaption, and feature extraction techniques to map electricity distribution and access using satellite imagery.
- Using dimensionality reduction tools such as tSNE, UMAP, and PCA to generalize model to work across different geographic domains.
- Studying the accuracy of different Convolutional Neural Networks, encoders and computer vision tools to devise solution for project needs, using **TensorFlow** and **Keras**.

Humans and Autonomy Lab Jan 2019 - May 2019
Project Volunteer

- Part of a team working on real-time detection and localisation of aerial drones using audio capture, analysis and binary classification using Support-Vector Machines.
- The final model will be used in prisons and security installations to detect real-time intrusion by drones, with a push-notification alert system.

SKILLS

Programming Languages Python, Java, React, C++, R, MATLAB
Software & Tools LaTeX, HTML, Git, MySQL