Aneesh Gupta

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EDUCATION

DUKE UNIVERSITY
BS in Computer Science
Minor in Mathematics
May 2022 | Durham, NC
Cum. GPA: 3.98 / 4.0
Major GPA: 4.0 / 4.0

Dean's List, All semesters

DELHI PUBLIC SCHOOL
Grad. May 2018 | New Delhi, IN
Junior Science Talent Scholar

LINKS

Website:// **aneeshgupta.me**
Facebook:// **xneesh**
Github:// **aneeshgupta42**
LinkedIn:// **aneeshgupta42**
Twitter:// **@aneesh__gupta**

COURSEWORK

UNDERGRADUATE
Adv. Software Design,
Computer Architecture,
Deep Learning & Energy Data,
Probability, Linear Algebra,
Intro to Applied Mathematics,
Discrete Maths, Writing
Data Structures & Algorithms,
Multivariable Calculus,
Economic Principles,
Prisoner's Dilemma

SKILLS

PROGRAMMING
Languages:
Python • Java • JavaScript
C++ • Matlab • R • Latex
Familiar:
C • Scheme • CSS • Shell
Frameworks and Tools:
React • Android • NodeJS
Git • HTML • Flask • MySQL

INTERESTS

Philosophy, History
Software + Data Engineering
Tech for Social Development
Data Modelling & Analytics
Geographic Remote Sensing

EXPERIENCE

ANB SYSTEMS, INC | Software Engineering Intern
May 2020 - July 2020 | Houston, TX

- Enhanced document recognition by improving Python image extraction algorithms accuracy by **75%** for ANB System's energy efficiency clients.
- Sped up data wrangling and analysis by **3.5x** by building an **AWS** Lambda based worker to ingest, transform and process large data payloads.
- Designed an end-to-end Data Lake architecture with **Flask** endpoints to retrain machine learning models with new data & improve over time.
- Created back-end algorithms for an Android app that takes a picture and extracts specific information using OCR and search patterns.

EVIDENCE FOR POLICY DESIGN | Software Development Intern
May 2019 – Aug 2019 | Harvard Kennedy School | New Delhi, IN

- Built custom software packages using **Python** for data ETL pipelines between **SQL** servers and a mobile and web application. Deployed to production on AWS, as part of a *Randomized Control Trial*.
- Developed a software package and protocol to extract, clean, and map social networks data using fuzzy string-matching. Reduced existing system memory needs and improved mapping speed by **80%**.
- Sped up system testing & data retrieval by **5x** using **Selenium** drivers and headless browsers to automate scraping and testing.
- Created a dashboard in **R Shiny** to aid economists in quantitatively analyzing the impact of a policy intervention by measuring women's smartphone access and usage in rural India.

DUKE UNIV. CS DEPARTMENT | Teaching Assistant
Aug 2019 – Present | Durham, NC

- Leading weekly lab sections, consulting hours, and assisting in grading examinations for Duke's *Introduction to Computer Science* and *Interdisciplinary Computing* courses.

RESEARCH

ENERGY DATA ANALYTICS LAB | Undergraduate Research
Aug 2019 – May 2020 | Durham, NC

- Built a system to generate synthetic textures to model artificial cities realistically, to improve and generate richer training data. **Link.**
- Investigated deep learning techniques to map electricity distribution and access using satellite imagery, as a tool for policy makers.
- Used dimensionality reduction tools such as tSNE and PCA to improve performance and adapt across different rural and urban geographies.

PROJECTS

- **Minerva:** Built a search engine for online-learning resources that provides users with top courses, videos, books, blogs, and code-bases in a single place. Built using React, Flask, and web scraping in Python.
- **HouseOfCards:** Created a graphical suite of card games such as Solitaire, Cards Against Humanity, Truth or Dare, and Concentration. Used immutable APIs, Inheritance, Test-Driven-Development, & MVC Architecture to implement project. Built using JavaFX and Stylesheets.