# Aneesh Gupta

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# **EDUCATION**

#### **DUKE UNIVERSITY**

BS IN COMPUTER SCIENCE MINOR IN MATHEMATICS May 2022 | Durham, NC Cum. GPA: 3.95 / 4.0

Dean's List, All semesters

# **DELHI PUBLIC SCHOOL**

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

# LINKS

Website:// aneeshgupta.tech 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
Sampling Theory and Practice

# **SKILLS**

#### **PROGRAMMING**

Languages:

Python • Java • JavaScript C++ • Matlab • R • Latex Familiar:

C • Scheme • CSS • Shell Frameworks and Tools: React • Android • NodeJS Git • HTML • Flask • SQL

# **INTERESTS**

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

# **EXPERIENCE**

FACEBOOK, INC. | SOFTWARE ENGINEERING INTERN (INCOMING) May 2021 - Aug 2021 | Menlo Park, CA

# 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 with **Flask** endpoints to manage data, 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.
- 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

• Intro to CS, Programming Interview Skills, and Interdisciplinary Computing.

#### 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.