Anirudh Mani

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EDUCATION

Carnegie Mellon University - School of Computer Science   Aug 2023 - May 2026
Bachelor of Science (B.S.) in Computer Science, Concentration in Machine Learning   Pittsburgh, PA
Awards: Best Campus Hack @HackCMU 2023, Runner Up at Goldman Sachs CMU Quantathon 2025
Courses: Intro to ML (PhD course), Computer Vision, AI Concepts, Natural Language Processing,
Data Structures & Algorithms, Linear Algebra, Probability, Functional Programming

Bellarmine College Preparatory   Aug 2019 - May 2023
1600 SAT, Bell Dev Club, Bell Business Club, NSDA Academic All-American   San Jose, CA

SKILLS

Languages: Python, Java, JavaScript, SQL, C++, C, HTML/CSS, Standard ML
Frameworks: PyArrow, PyTorch, React, Django, MySQL
Developer Tools: Git, AWS, VS Code, Sublime Text, Google Colab, Jupyter Notebook

EXPERIENCE

Machine Learning Engineer Intern   Feb 2024 - Present
Rockfish Data (Synthetic Data Platform)   Pittsburgh, PA and San Ramon, CA
- Engineered **hyperparameter tuning** strategies for ML model training by aligning configurations with input dataset attributes to drive enhanced model performance and efficiency
- Performing workflow tests on diverse dataset schemas for customer and internal datasets, streamlining **preprocessing** by resolving errors such as missing values
- Developed an automated detection mechanism for input data types (Time Series/Tabular), enabling the Rockfish **Recommendation Engine** to dynamically configure ML model parameters
- Enhanced Rockfish platform **sampling efficiency** by calibrating epoch counts to robustly capture rare data categories during ML model training
- Established a **12% data fidelity** advantage for Rockfish through **performance benchmarking** of Rockfish and top competitors (Gretel, Mostly AI)

Data Engineer Intern for AZ State Senate and MN Congress campaigns   Jun 2022 - Jun 2023
Bluebonnet Data (*Political Data Consulting Org*)   San Jose, CA
- Developed **SQL** queries to extract demographic trends from the DNC BigQuery Warehouse
- Engineered voter distribution heat maps, elevating targeted outreach effectiveness by **30%** versus the 2020 campaign
- *Blog:* Data-Driven Doorknocking for Constituent-Centered Outreach Strategy (https://bit.ly/4fOpjzb)

PROJECTS

Clickbait Detection   [BERT DL model, PyTorch, Hyperparam Tuning]   Oct 2024 - Nov 2024
- Implemented an Encoder-Decoder model and fine-tuned hyperparameters to optimize classification performance

Total Football   [JavaScript, React, Django, AJAX, HTML/CSS]   Oct 2024 - Dec 2024
- Designed and developed an app for creating, managing, and competing with fantasy soccer teams

Cache Lab   [C, Memory Allocation/Management]   Feb 2024 - Mar 2024
- Conducted in-depth analysis of cache line management and quantified the impact of various operations on cache performance

Eco-Bin   [Python, ML, HTML/CSS]   Sep 2023 - Jan 2024
- Designed an ML-driven, point-of-use guided trash sorting application for CMU Sustainability