ARUSH MEHROTRA

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Education

University of Pennsylvania (School of Engineering & Applied Science) — Philadelphia, PA
GPA: 3.99/4.00 | BSE Computer Science | MSE Computer Science | Dean's List — *August 2021 – May 2025*

Technical Skills

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Architecture, Big Data Analytics, Database & Information Systems, Discrete Mathematics, Statistics, Linear Algebra
Languages: Java, Python (Pandas, NumPy, Scikit-learn, Pytorch), Go, C, C++, HTML/CSS, JavaScript, TypeScript, SQL, Haskell, OCaml, SystemVerilog
Frameworks: React, Express, Node, Angular, Svelte, Jest
Software Tools: Git, Docker, Apache Spark, Amazon RDS, Azure, AWS, Selenium, Jenkins

Experience

Viam Robotics — New York City, NY
Software Engineering Intern | Data & ML Team — *May 2024 – Present*
- Developed new paradigm for data collection on edge devices, allowing inference outputs from machine learning models to be associated with images at the time of capture using **Go**, **Svelte**, and **Python**
- Led cloud data migration of **70 million** customer files from **Amazon S3** to **Azure Blob Storage**

True Ventures — San Francisco, CA
True Ventures Fellow — *June 2023 – Aug 2023*
- Actively engaged with the True Ventures investment team to understand evaluation metrics and deal flow
- Conducted market research on trends within the AI industry to present to firm partners and investors

Fletch AI — San Francisco, CA
Software Engineering Intern — *June 2023 – Aug 2023*
- Developed a robust testing framework using **Jest**, resulting in improved code quality and faster development cycles
- Enhanced UX for **100+** trial clients via **React** UI components, boosting engagement and click-through rates
- Created and fine-tuned API endpoints in **Go**, facilitating swift data retrieval and updates

Fidelity Investments — Durham, NC
Software Engineering Intern — *June 2022 – August 2022*
- Built **CI/CD** pipeline using **Jenkins** & **Docker** supporting end-to-end test automation for **250+** DevOps engineers
- Wrote automation scripts in **Selenium** using **Java** and the **Cucumber** framework
- Designed and built a dashboard to enable capture of free format log information to provide reporting features
- Utilized **PostgreSQL, Node.js, Express.js** & **Angular/Angular Material** to develop the dashboard

UPenn CIS 1200 (Programming Languages & Techniques) — Philadelphia, PA
Teaching Assistant — *August 2022 – Present*
- Mentored students in **OCaml** & **Java** programming assignments through active leadership in small-group (**15**) recitation sessions and weekly office hours
- Led midterm and final exam review sessions with **150+** students in attendance

Projects

AirBnB Price Prediction Model
https://github.com/arush-mehrotra/AirBnB-Price-Prediction-Model
- Integrated, aggregated, cleaned, and merged multiple datasets to enable holistic analysis of pricing factors
- Utilized **Seaborn, Matplotlib, Folium** for data visualization
- Implemented ML models including **PCA, Gradient Boosting, Random Forest Regression, Neural Networks**

Penn OS
- Built a single-core operating system with a FAT-based **filesystem**, **kernel**, and **scheduler**, ensuring proper process management and system stability
- Implemented multiple built-in **UNIX** commands accessible from the shell, enabling user interaction with the filesystem
- Supported signal handling and synchronous child waiting using **concurrent threads**