Varun Chitturi

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EDUCATION

University of Pennsylvania Philadelphia, PA
Accelerated Masters in Computer Science; GPA: 4.00/4.00 *Aug 2025 – May 2026*
B.S.E in Computer Science; GPA: 4.00/4.00 *Aug 2023 – May 2026*
Concentration in AI and Minor in Math

Relevant coursework: Machine Learning; Graph Neural Networks; Linear Algebra; AI Lab; Natural Language Processing; Statistics for Data Science; Computer Systems; Programming Lang. and Techniques; Data Structures and Algorithms; Automata, Computability, and Complexity;

SKILLS

Languages: Python, C/C++, Swift, Java, OCaml, HTML/CSS/JS, SQL, Shell

Technologies: PyTorch, AWS/Google Cloud, SwiftUI, Swift Core Data, Swift on Server (Vapor), Git/Github, Docker, Terraform, NumPy, Flask, Svelte, Firebase, Postgres, Figma

Methodologies: DevOps, CI/CD, Scrum, OOP, Functional Programming, MVVM

EXPERIENCE

ESE 2000: AI Lab - UPenn Philadelphia, PA
Teaching Assistant *May 2024 – Present, Full-time*
- Independently devised comprehensive solutions for machine learning labs, including Variational Autoencoders, Variational Diffusion Models, Actor-Critic Reinforcement Learning, and Large Language Models.
- Authored in-depth explanations accompanying solutions, ensuring clarity and rigor by integrating detailed mathematical proofs. Some notes were published at personal website.

DataChat AI Madison, WI
Software Engineer Intern *July 2022 – May 2023, Full-time*
- Managed cloud infrastructure, development pipelines, and DevOps services for our product DataChat.AI.
- Transferred our entire AWS Kubernetes deployment from UI-based to IAC (Infrastructure as Code) using Terraform, while automating infrastructure updates through CircleCI, Docker Compose, and AWS.

PROJECTS

Ease Attendance | *Website*
- Developed and launched easeattendance.com, a web platform designed to seamlessly integrate with Zoom meetings, streamlining the way educators manage attendance. The platform offers real-time attendance tracking, comprehensive statistical insights, and user-friendly features.
- Currently being maintained for over 6,000 educators.

Rift | *Website*
- Built an iOS application built with SwiftUI, offering students an enhanced in-app experience for managing their academic journey. Reverse-engineering the Infinite Campus API, to provide students with seamless access to vital information such as grades, homework assignments, and messages, all within a user-friendly interface.
- Currently being maintained for over 15,000 middle and high school students.

AI Poverty Prediction using Satellite Imagery | *Paper*
- Authored a research paper focused on leveraging deep learning computer vision techniques for predicting poverty levels in various global regions using overhead satellite imagery.
- Addressed the challenge of limited reliable economic data in developing areas, offering a more cost-effective alternative to traditional surveys. Explored the impact of data quantity and augmentation on network performance in order to improve the model.

Algorithmic Stock Trader
- Developed a headless server for automated options day trading, integrating a TradingView-hosted algorithm with the Ameritrade API. Utilized RSI (Relative Strength Index) to optimize trading positions

AWARDS

USA Computing Olympiad *Dec 2019*
USACO Gold Division

ACTIVITIES

Division 1 Athlete *Aug 2023 – May 2026*
University of Pennsylvania Varsity Squash Team
- Currently in the starting lineup for the #1 ranked collegiate squash team in the country.
- Contributed to winning the Ivy League 2023-24 Season and 2024 Collegiate National Championships.