

Vinay Venkatesh

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EDUCATION

Carnegie Mellon University

Pittsburgh, PA

Bachelor of Science in Machine Learning/Statistics and Artificial Intelligence

June 2027

- **Relevant Coursework:** Machine Learning, Computer Vision, Deep Learning, Data Structures and Algorithms, Probability, Data Science, Functional Programming, Linear Algebra, Statistical Visualization
- **Activities:** Data Science Club, Artificial Intelligence Club, Asian Student Association, Phi Delta Theta Fraternity

EXPERIENCE

AI Integration Engineer Intern*

Jan. 2026 – Present

Wolfe, LLC

Pittsburgh, PA

- Collaborating cross-functionally to integrate AI workflows improving content speed, personalization, and efficiency
- Building and evaluating multimodal creative AI pipelines (OpenAI) for video, image, and copy generation
- Prototyping agentic AI systems to automate creative production and project-management workflows
- Contributing to fraud detection and security AI for transaction screening and compliance support

Software Engineer Intern

June 2025 – Aug. 2025

Payactiv

Milpitas, CA

- Developed 30+ RESTful APIs for an XMPP-based chat platform supporting 1M+ users
- Designed and updated PostgreSQL schemas, reducing query latency by 15%
- Wrote automated tests with xUnit and Postman, improving API reliability and reducing regressions
- Delivered QBR-ready features two weeks early using Jira within Agile/Scrum workflows

Machine Learning Engineer Intern

Feb. 2023 – Aug. 2024

San Jose State University

San Jose, CA

- Optimized ML pipeline linking 3D facial geometry and DNA, achieving 0.73 AUROC in face-DNA verification
- Compressed 120K+ vertex meshes into 16-D embeddings using SpiralNet++ for efficient geometric learning
- Improved verification accuracy by 18% using 41 biologically tested SNPs instead of PCA on 3.8M genomic markers

Software Engineer Intern

July 2022 – Sep. 2022

GenerAI

Fargo, ND

- Built a web and mobile app using React Native and ASP.NET Core connecting 200+ creators with 50+ brands
- Collaborated with COO and 3-person engineering team to launch MVP within 8 weeks

PROJECTS

ArmVision | *Python, Computer Vision, Tensorflow, Research*

IEEE Publication Link

- Developed a real-time firearm detection system using computer vision
- Trained a YOLOv5 model on a curated RoboFlow dataset, achieving 93% peak accuracy
- Evaluated model performance across precision, recall, and latency benchmarks
- Published and presented findings at an IEEE conference

Math Performance Analysis & Visualization | *Next.js, TypeScript, D3.js, Recharts*

GitHub Link

- Designed and developed web dashboard to explore factors affecting Portuguese students' math performance
- Created 10+ interactive visualizations revealing relationships between academic habits, demographics, and results

TradeSim | *Node.js, Express.js, RESTful APIs, Fintech, Full-Stack Development*

GitHub Link

- Built a responsive trading dashboard displaying 6 real-time KPIs (volume, open orders, executed trades, etc.)
- Implemented an order matching engine with partial fills, price-priority execution, and multi-symbol order books
- Developed 9 RESTful API endpoints for order submission, matching, event streaming, and more

TradeAlgo | *TD Ameritrade API, Python, C#, Selenium*

GitHub Link

- Developed a trading algorithm using the TD-Ameritrade API and TradingView web scraping to place orders on NYSE penny stocks
- Assembled a dashboard with C# to control investment allocations and markers like volume, float, and more

Libmaths | *Python, NumPy, Matplotlib*

GitHub Link

- Developed a Python library providing reusable mathematical utilities and plotting tools for numerical analysis

SKILLS

Languages: Python, Java, TypeScript, C, C++, Go, Swift, C#, JavaScript, SQL (Postgres), HTML/CSS, R

Frameworks & Libraries: React, PyTorch, Angular, Node.js, Tensorflow, pandas, NumPy, Matplotlib

Tools: Claude Code, GitHub, Docker, Kubernetes, Azure, Jira, Postman, TestFlight, Cursor, Windsurf, Google Colab, Linux, Hadoop, Kafka, Nagios

Methodologies: Retrieval Augmented Generation, Time-Series Forecasting, Regression, GANs, PCA, Agile, Scrum

Other: Rowing, Saxophone, Chess