

Alvin Banh

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EDUCATION

Massachusetts Institute of Technology

Bachelor of Science in Computer Science

Cambridge, MA

Aug. 2022 – May 2026

EXPERIENCE

Artificial Intelligence Researcher | Foundation Model Analysis

MIT FutureTech

June 2024 - Present

Cambridge, MA

- Collected and analyzed data from 1200+ AI models papers
- Evaluated technical specifications for various foundational models
- Investigated the current trends of foundational model training and data structures

Engineering Intern | Autonomous Vehicle Data Analysis

Bizlink Holding Inc

July 2022 - August 2022

Fremont, CA

- Researched hardware architecture of 20+ cable and autonomous vehicle (AV) companies
- Conducted research and analysis with minimal supervision
- Synthesized data and developed 10 comprehensive reports of hardware specifications
- Compiled notes from SEMICON West conference and organized information for colleagues

PROJECTS

COVID-19's Origins Logistic Regression | *Python, Genomic Data*

February 2021 – March 2021

- Compared COVID-19 genomes to bat coronavirus genomes to geolocate high risk areas
- Implemented feature reduction methods to successfully identify regions of high risk with 91% accuracy
- Revised with L1 regularization to prevent overfitting

Image Processing System for CNNs | *Python, Seam Carving*

Feb 2024 – April 2024

- Created an image processing system with various filters and seam carving functionality
- Adjusted to be used in preprocessing images for machine learning
- Applied edge detection, blur, sharpen, color and inversion functionality

Poker Bot with Monte Carlo Simulation | *Python, Game Theory*

Dec 2023 – Feb 2024

- Built a poker bot that plays poker computing probabilities before making decisions.
- Utilized calculated risk analysis and precomputation to inform actions
- Designed efficiently to run 8000 epochs within 30 seconds

AWARDS

Ruth and Norman Rales Scholar

KIPP Public Charter Schools

March 2022

San Jose, CA

- 4 year college scholarship recognizing public service
- Maintained a 3.0 GPA or higher for all college semesters
- Participated in annual leadership conferences

TECHNICAL SKILLS

Programming Languages: Python, Java, C/C++, SQL, JavaScript, HTML/CSS

Developer Tools: Git, VS Code, Visual Studio, Linux, IntelliJ, MongoDB, FluidX3D

Libraries: scikit-learn, pandas, NumPy, Matplotlib, Manim

Languages: Fluent English, Novice Spanish