

# Jacob A. Frausto

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## EDUCATION

### STANFORD UNIVERSITY

M.S. Computer Science (AI), GPA: 3.9/4.0

STANFORD, CA

2023-2025

### BROWN UNIVERSITY

Sc. B. Computer Science, GPA: 3.8/4.0

PROVIDENCE, RI

2019 – 2023

**Relevant Coursework:** Deep Learning for Computer Vision, Decision Making under Uncertainty, Software Engineering, Algorithms and Data Structures, Discrete Structures and Probability, Machine Learning, Computational Linguistics, Data Science

## EXPERIENCE

### LINKEDIN

Software Engineer, Machine Learning

Sunnyvale, CA

July 2025 – Present

### STANFORD UNIVERSITY

Course Assistant

Stanford, CA

September 2023 – June 2025

- Courses include CS 148 (Computer Graphics & Imaging), CS 229 (Machine Learning), and CS 221 (Artificial Intelligence)
- Topics include ray tracing, geometric modeling, supervised/unsupervised/reinforcement learning, Markov/Bayesian networks.

### LINKEDIN

Artificial Intelligence Engineer Intern

Sunnyvale, CA

June 2024 – September 2024

- Established a robust data mining workflow with jobs for fetching 1500+ video transcripts from Learning platform content.
- Pioneered an automated onboarding system for agentic LLMs, reducing onboarding time from 1-2 weeks to just 1 day.
- Engineered a comprehensive evaluation framework incorporating novel metrics and a Panel-of-LLMs evaluation method.

### STANFORD INTELLIGENT SYSTEMS LAB (SISL)

Graduate Research Assistant

Stanford, CA

January 2024 – June 2024

- Researched safety validation for autonomous systems using a neural radiance field (NeRF) as a surrogate model.
- Executed 500+ simulations with a NeRF trained on a simulated environment uncovering failure modes (collisions).
- Implemented two uncertainty quantification methods to measure confidence in density predictions made by the NeRF.

### VERITAS AI

AI & Data Science Mentor

Cambridge, MA

July 2023 – August 2023

- Guided groups of 3-4 students in practical application of fundamental AI and ML concepts through hands-on projects.

### BROWN INTERACTIVE 3D VISION & LEARNING LAB (IVL)

Undergraduate Research Assistant

Providence, RI

January 2022 – May 2023

- Explored the application of NeRFs for scene modeling tasks.
- Designed and built a wrist-mounted multi-camera prototype to capture egocentric video data.
- Managed lighting control module for interactive capture stage, resulting in a comprehensive dataset of dynamic and static scenes.

### SAMSARA

Software Engineer Intern

San Francisco, CA

May 2022 – August 2022

- Developed a paginated report feature that provides customers with a holistic view of their device connectivity data.
- Employed data-driven insights to optimize the performance/behavior of several in-house React components.

### AMAZON (AWS)

Software Development Engineer Intern

New York, NY

June 2021 – August 2021

- Designed and deployed a service in Java to collect and aggregate metrics on the performance of SAT/SMT solvers.
- Utilized AWS microservices to construct cloud-based pipelines and infrastructure.

## PROJECTS

### DeepQHoldem: Applying Deep Q-Learning to No-Limit Texas Hold'em Poker, CS 238 & CS 221

December 2023

- Engineered an agent achieving a win rate of 71.70% and expected earnings per round of 140.2567 against random agent.
- Performed rigorous experimentation with 10,000 rounds to optimize the learning process of the agent.

### Swish Science: Predicting NBA Success with Data Visualization, CSCI 1951A

May 2023

- Analyzed 13,504 data points, identifying possession-related statistics as key factors impacting NBA team success.
- Developed logistic regression model that predicts team performance with 81.18% test accuracy.

### genClassBezier2D, Personal

January 2022

- Constructed a procedure to generate several datasets of abstract 2D shapes formed using Bezier curves.
- Produced the architecture for a CNN model that classifies said shapes with 97.53% testing accuracy.

### GeoGuessing With Photo Localization and Deep Learning, CSCI 1430

December 2021

- Trained and utilized a CNN model to predict the geographical location of images taken within the 50 U.S. states.
- Achieved a testing accuracy of 20.7% as opposed to 4% accuracy attained by human subjects.

## TECHNICAL SKILLS

**Languages:** Python, Java, Go, JavaScript, C, C#, C++, Scala, Julia, SQL, GraphQL

**Frameworks & Libraries:** PyTorch, TensorFlow, scikit-learn, OpenCV, Linux, ROS, React, Selenium, Beautiful Soup