

ROAN HOWARD

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EDUCATION

Stanford University, Stanford, CA

BS in Computer Science, specializing in Artificial Intelligence; minor in Art Practice

June 2027

Relevant Coursework: Linear Algebra and Multivariable Calculus (MATH51); Mathematical Foundations of Computing (CS103); Mechanics (PHYSICS41); Statistical Methods (STATS60); Probability for Computer Scientists (CS109); Programming Methodology (CS106A); Programming Abstractions (CS106B); Computer Organization and Systems (CS107); Information Science and Engineering (ENGR76); Design and Analysis of Algorithms (CS161); Natural Language Processing & Large Language Models (CS124); Matrix Methods (ENGR108); Continuous Mathematical Methods with an Emphasis on Machine Learning (CS205L)

Student Organizations: Stanford Alaska Native Student Association; The American Indian Science and Engineering Society; Stanford Chess Club; Stanford Orientation Volunteer (Logistics for 1,500+ students); Stanford Tree Hacks (acceptance rate ~7%); Kappa Sigma Fraternity, Intramural Basketball

Inglemoor High School, Kenmore, WA

The International Baccalaureate Diploma Program; Chess Club President; Economics Club; Inglemoor High School Honors Society; Varsity Athlete: Soccer, Cross Country, Crew; Orientation Leader; Eastside Native American Program Coordinator

June 2023

RECENT PROJECTS

Service Agent, CS124 Capstone Chatbot

February - Present

- Developing a transformer-based NLP film recommendation agent in a four person team, implementing dialogue modeling and domain-specific reasoning frameworks

Brainiac, Daily Word Puzzle, <https://www.thedailybrainiac.com>

February 2026

- Built and deployed a full-stack daily word game using Next.js, PostgreSQL, and OpenAI GPT-4o, featuring real-time AI answer validation, automated bot simulation, and a Vercel cron pipeline for daily content delivery
- Engineered a serverless REST API with Prisma ORM and Supabase, implementing cookie-based auth, CDN caching, and open-ended input handling at scale

Valid, Anonymous Polling Platform

February 2026

- In 24 hours, engineered AI-powered semantic search using OpenAI embeddings and PostgreSQL pgvector to match user queries
- Built full-stack anonymous polling system with Next.js 14, Supabase, and TypeScript enabling real-time voting, community-driven summaries via GPT-4, and browser fingerprinting for fraud prevention

Robot Referee, Data Labeling Tool

February 2026

- In 12 hours, built a video-reasoning robotics referee designed around the Stanford IPRL Lab data set using Python, FastAPI backend, Next.js frontend, Cosmos Reason API, OpenAI vision models, structured JSON evaluation schemas, and Dockerized local deployment, automatically auditing robot demonstration videos against goal and rule constraints

RECENT WORK EXPERIENCE

Future Ancestor Alliance, Machine Learning Engineer

January 2026 - Present

- Developing a Tlingit NLP transcription and translation pipeline serving a 20,000 person Indigenous community
- Outreach with 15+ Native organizations to collect language data and develop data sovereignty infrastructure

Hubbard Brook Data Jam, Data Scientist

January 2026 - Present

- Selected for a 8-week program to visualize over 46 years of data for the Hubbard Brook Experimental Forest

New England Seafood International, Learning and Development Intern, London, UK

June 2025 – August 2025

- Revamped learning and development strategy for 600+ employees
- Deployed a Python script to automate Dayforce course uploads, saving 100+ hours of manual administrative time

Van Ness Feldman, Legal Assistant, Seattle, WA

June 2024 – August 2024

- Contributed to the Ninth Circuit's Wild Fish Conservancy ruling, safeguarding economic stability for 15,000+ Southeast Alaskans
- Researched over \$100K in potential grant opportunities for Alaska Native corporations

SKILLS AND INTERESTS

- *Programming Languages:* Python, Julia, C++, C, Assembly, LaTeX, HTML, CSS, R, SQL, MATLAB
- *Libraries:* NumPy, Pandas, Matplotlib, scikit-learn, SciPy, TensorFlow, PyTorch, Keras and more.
- *Tools:* Jupyter, Hugging Face, Nebius, Supabase, Vercel, GitHub, pgAdmin, Figma, DaVinci Resolve, Excel
- *Hobbies:* Ran 2025 Vancouver Marathon, author of 300+ film reviews, backpacked 15+ countries, sculptor