

Biya Brook

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Education

Stanford University - Stanford, CA | 3.89 GPA

June 2027

B.S. in Computer Science w/ AI Concentration & B.A. in Linguistics

Relevant Coursework: CS 106B - Data Structures & Algorithms, CS 109 - Probability for Computer Scientists,

Math 51 - Linear Algebra, Multivariable Calculus & Applications, CS 106AX - Accelerated Programming

Methodologies in JavaScript and Python

Professional Experience

Research Assistant | Boston Children's Hospital

June 2023 - August 2024

Department of Orthopedic Surgery and Sports Medicine - Boston, MA

- Trained and validated a 3D U-Net CNN ML model to segment bones from MRI & CT scans, improving model success rate from **10% to 85%**
- Performed statistical analysis of pre-operational & post-operational clinical notes
- Served as the Commencement Speaker for the 2023 internship cohort

Founder & CEO | ScholaLatinae 501(c)(3)

April 2023 - Present

JavaScript, Next.js, React, YouTube API, Supabase

- Developed an educational platform using Next.js that helps **over 3,000 students** learn Latin & Greek for free
- Programmed an algorithm that recommends practice questions based on past success, over **10k qs answered**
- Edit video lessons and release them on YouTube; Design social media marketing posts using Photoshop

Math & SAT Tutor | Transform Tutoring

November 2024 - Present

- Provide individualized 1 on 1 tutoring to Bay Area high school students over zoom and in person
- Create curricula tailored to each student's academic needs and focus areas

Projects

Player Prop EV Model | Python, Pandas, NumPy, SciPy, NBA API, The Odds API

March 2025

- Developed a statistical model using Bayesian inference to identify value in NBA player prop markets
- Implemented sequential Bayesian updating to account factors such as opponent and recent performance
- Identified positive EV opportunities through comparing model-generated vs. implied market odds

Solana Rivals | TypeScript, Express.js, Next.js, TailwindCSS, Shadcn UI, Supabase, Docker

February 2025

- Built the first gamified crypto trading platform with personalized, autonomous competing AI-powered agents
- Developed an algorithm that analyzes real-time coin data and user preferences to inform trading decisions
- Achieved up to **300%** projected 24-hour profit in volatile market conditions by optimizing agent settings

InboxRecap | JavaScript, Next.js, React, Joy UI, Gmail API, OpenAI API, Resend

August 2024 - Present

- Run an inbox management software that sends daily summary emails of one's inbox & helps bulk unsubscribe
- Leverage Gmail API to clean user's inbox, OpenAI API for summarizing, and Resend for sending emails

Skills

Coding Languages: Python, C++, JavaScript, TypeScript, Swift, HTML/CSS

Frameworks & Libraries: Next.js, React.js, Flask, Node.js, Express.js, Tailwind CSS, Pandas, NumPy, SciPy

Language: Bilingual in English and Amharic; Studied Mandarin Chinese, Latin, Ancient Greek, and Ge'ez

Extracurricular Activities

- SSO (Stanford Symphony Orchestra), **Percussion/Timpani** (2024 - Now)
- Stanford Students in Biodesign & Biopharma, **Digital Health** (2024 - Now)
- Stanford Daily, **Sports & Crossword** (2024 - Now)

Honors & Awards

- **11x** National Certamen Winner, **3x MVP**
- Harvard Certamen, **1st Place & MVP**, (2021)
- 22-23 Community Service Award (**250+ vol. hrs**)
- MA Seal of Biliteracy in **Amharic & Latin**
- National Latin Exam, **Perfect Score** ('19, '21, '24)