Joshua Zhang

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Education

Harvard University   Cambridge, MA
B.A. in Computer Science & Statistics ‖ Minor in Educational Studies ‖ Chinese Citation   Expected May 2027
Relevant Courses: Planning and Learning Methods in AI, Advanced Data Science, Linear Modeling, Data Structures and Algorithms, Statistical Inference, Probability, Linear Algebra, Discrete Mathematics, Multivariable Calculus

Skills

Programming Languages: Python, Swift, C++, R, Javascript, Typescript, SQL, MATLAB
Technical Skills: React, Scikit-Learn, Tensorflow, Pytorch, Next.js, Numpy, Pandas, Plotly, Seaborn, Matplotlib, AWS, Hugging Face, Supabase, Firebase, Docker, OPIc Advanced Proficiency in Chinese, Blender, Fusion360, Solidworks, Adobe, Microsoft Office

Experience

Astranis (Y-Combinator 2016) ‖ *Software Engineering Intern - Mission Engineering*   *Incoming Jan 2026*
Scale AI ‖ *Generative AI Intern*   *Oct 2025 - Present*
- Fine-tune and evaluate large-scale generative AI models for enterprise applications, enhancing multi-step reasoning, problem decomposition, and code synthesis
- Create controlled LLM failure frameworks, optimize and debug model-generated code, and develop evaluation rubrics to benchmark reasoning and code accuracy

Projects

Decoding Winning Patterns in Professional Basketball via Transformers   *Jul 2025 - Aug 2025*
Accepted into the 2025 New England Symposium on Statistics in Sports (NESSIS)
- Developed two transformer models using player-level NBA data (2016–2025) to predict regular season and playoff win totals (Validation MAEs of 6.49 and 2.12), achieving performance competitive with modern forecasting models and providing a practical tool for evaluating roster impact and front office decisions

Mass. Food Network ‖ **Overall First Place Winner** ‖ Hacking Injustice - Community Health Track   *Mar 2025*
- Engineered an algorithm leveraging the OpenAI Vision API, Regex, OpenAI API, and Google Maps API to parse uploaded grocery list images and connect users with local vendors, optimizing affordability through balanced cost-distance, per-item pricing, and proximity-focused matching
- Constructed a Supabase database and front-end interface for local vendors to upload business information and enable users to submit grocery lists that are matched with relevant vendor items

Arbitraider ‖ Hacklytics at Georgia Tech - Finance Track   *Feb 2025*
- Deployed backend on AWS SageMaker and S3 to scrape 15,000+ live bets from Kalshi and Polymarket
- Built and optimized an algorithm with the OpenAI API using parallel processing to quantify bet correlation scores, mitigate token usage, and rank arbitrage opportunities
- Developed an interface to visualize trends and integrated the Grok API for real-time insights

Caption Capturer ‖ Personal Project   *Jan 2025*
- Published a multi-language Chrome extension utilizing the Web Speech API, Chrome Extension APIs, and virtual audio mixers to provide real-time, accurate speech-to-text captions for any website

Monch ‖ **First Place Winner** ‖ HackUTD - Pinata Platinum Sponsor Track   *Nov 2024*
- Deployed a TensorFlow-based convolutional neural network leveraging the Food 101 dataset to classify food items and identify ingredients, and integrated it with the FoodData Central API to predict macro-nutrient distribution
- Designed a user interface enabling users to scan or upload meal photos and analyze progress through goal-oriented graphs

Leadership and Activities

Datamatch ‖ Web Team Software Engineer   *Oct 2024 - Present*
- Spearheaded the design and deployment of Cupid, an OpenAI Assistants-powered chatbot with a custom pixel-art interface, engaging over 32,000 college students

Harvard Radio Broadcasting (WHRB) ‖ Sports Announcer   *Sep 2024 - Present*
- Provide live play-by-play commentary and in-depth analysis for Harvard basketball and football games, engaging listeners with dynamic coverage and real-time insights on radio station Cambridge 95.3 FM

Asian American Association ‖ Social Committee → Treasurer → Senior Representative   *Dec 2022 - Present*
- Foster community and engagement among upperclassmen in the Pan-Asian community through cultural and social events

Harvard Sports Analytics Collective ‖ Analyst   *Oct 2022 - May 2023*
- Analyzed sports data trends to write statistics-based articles and consult with various professional sports teams