# Jaden Zhang

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# EDUCATION

# Harvard University

Cambridge, MA

Bachelor of Arts in Computer Science and Statistics, Minor in Neuroscience — GPA: 4.0/4

May 2028

- Relevant Coursework: Data Structures and Algorithms, Systems Programming, Statistical Inference and Probability, Linear Algebra, Multivariable and Vector Calculus, Discrete Mathematics
- Clubs and Activities: Harvard Competitive Computing Club (ICPC Regional Competitor), Harvard Tech for Social Good (Senior Software Engineer), HackHarvard (Director of Technology), Teaching Fellow (SEAS Engineering Sciences 30)

## EXPERIENCE

## Intern Software Engineer

May 2025 – August 2025

Kinaxis

Ottawa, ON, Canada

- Enhanced Kinaxis' supply chain orchestration platform architecture across seven critical user-facing components.
- Implemented agentic features in C# using Model Context Protocol servers to enable autonomous orchestration.
- Built React.js interfaces and Playwright tests to strengthen system visibility and ensure end-to-end reliability.

#### Lead Software Engineer

February 2025 – May 2025

NIOSH (National Institute for Occupational Safety and Health)

Cambridge, MA

- Led a team of five engineers developing a Retrieval-Augmented Generation (RAG) system for NIOSH to surface insights from decades of mining research.
- Designed end-to-end system architecture integrating Supabase and vectorized databases to index and retrieve data from thousands of technical PDFs with source citations.
- Built scalable full-stack components enabling semantic search and intelligent document retrieval using AI and machine learning models.

## Software Engineer

September 2024 – January 2025

UNICEF

Cambridge, MA

- Led database modernization for UNICEF's Geosight platform, redesigning SDMX pipelines and data models to improve query efficiency and cross-country data exchange.
- Optimized data synchronization algorithms between Geosight and the Data Warehouse, reducing processing latency and improving scalability.
- Recognized with a Spotlight Mention at FOSS4G Brazil 2024, the world's largest geoinformation conference.

#### Projects

Atlas | Supabase, React, OpenAI GPT-40, Whisper, Pandas, WolframAlpha API, Orkes Conductor

April 2025

- Winner of Caltech HackTech 2025 Best Use of Orkes Conductor for an AI-driven civic transparency platform.
- Built a full-stack system converting government budgets and meeting videos into interactive maps, analytics, and search tools.
- Implemented RAG-based natural language querying with GPT-40 and Whisper for document and transcript understanding.
- Developed orchestration pipelines and data retrieval systems with Supabase and Conductor.

#### A.phrase.ia | React Native, Expo, FastAPI, OpenAI API, Mixtral

September 2024

- Winner of HackMIT 2024 Best Use of LLMs for an assistive communication app empowering aphasia patients.
- Built a mobile web app generating predictive emoji-based sentences using Markov chains and LLMs to enhance expressive accuracy.
- Integrated Mixtral for contextual image generation, enriching visual communication in real time.
- Developed a FastAPI backend and React Native frontend for seamless, low-latency user interaction.

#### Awards

 $Harvard\ ICPC\ Regional\ Competitor\cdot Caltech\ HackTech\ 2025\ Best\ Use\ of\ Orkes\ Conductor\cdot HackMIT\ 2024\ Best\ Use\ of\ LLMs\cdot Nighthacks\ 2024\ Popular\ Vote\ Winner\cdot GooseHacks\ 2023\ Best\ Beginner\ Hack$