

Joyee(Zhuoyi) Jin

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Skills

Languages: C++, C, Java, Python, JavaScript

FrameWork/ Technology: R, NumPy, Microsoft Azure, Unit Testing (JUnit, Pytest), Express.js, Next.js, Vercel

Education

University of Toronto

Sept 2023 – May 2027

BS in Computer Science, Computational Cognitive Science

Coursework: Software Tools and Systems Programming, Data Structures and Algorithms, Software Design, Theory of Computing, Computer Organization, Intro to Stats, The Design of Interactive Computational Media, Introduction to Machine Learning, Data, Computation, and the Mind

Experience

Reaserch Assistant - Stanford University

California, US

Human-Computer Interaction in Artificial Intelligence

May 2025 – Sept 2025

- Investigated prompt engineering strategies to optimize large language model performance in human-AI collaborative tasks.
- Designed and deployed interactive research prototypes using Next.js, JavaScript, and Vercel for iterative user studies.
- Conducted data analysis in R and applied machine learning models to uncover patterns in interaction data for predictive interface adaptation.

Student Researcher

Toronto, Canada

University of Toronto, IDELA Lab

Sept 2025 – Present

- Applied machine learning to large-scale educational datasets within the Aplus research initiative, developing predictive models for adaptive learning.
- Conducted experimental analyses to evaluate AI-driven educational interventions and student performance outcomes.
- Supported methodological design and implementation of data-driven approaches in educational research.

Software Engineer Intern

Manitoba, Canada

Department of National Defence

June 2023 – Aug 2023

- Engineered backend solutions for 85,000+ cadets, migrating 25,000+ records securely via Flask.
- Automated email workflows with Python/Django.
- Built a user-friendly portal with file uploads and secure login.

IT and Public Affair officer

Vancouver, Canada

Department of National Defence

Feb 2025 – Present

- Researched and deployed Azure cloud-based workflows and digital tools (e.g., automated email generator, tracking systems) to streamline operations.
- Designed and maintained the squadron's website, improving accessibility and communication for 200+ cadets and staff.
- Served as a liaison between technical and leadership teams, aligning organizational needs with research-informed digital strategies.

Projects

Paper Reference System

github.com/Paper-Reference-System 

- Academic Assistance Tool: Developed a system to assist students in academic writing by providing relevant resources
- Tools Used: Summarization Feature: Integrated article summarization functionality to present key information, using Natural Language Processing (NLP) techniques.
- Search Algorithms: Employed advanced search algorithms to ensure relevance and accuracy in article recommendations, enhancing the research experience for students by reducing the time needed to locate resources.

Airline Planning System (Python)

github.com/airline-RS 

- Built a custom airline planning system utilizing real-world data from Google Flights, enabling users to plan flights according to personal preferences and requirements.
- Incorporated features for customization and flexibility in flight planning, offering a tailored experience by adapting flight data to users' specific travel needs.
- Ensured system scalability to handle high volumes of flight data and optimized performance to deliver fast responses, using frameworks like Pandas and NumPy for efficient data processing.

Hearing Disability Assistant

github.com/HOI 

- Hardware: Developed a wearable device capable of detecting essential sounds in daily life (e.g., fire alarms, door knocks) to assist individuals with hearing impairments.
- Software: Designed a companion website to log detected sounds and display real-time alerts.
- Tools and Technologies: C++, Arduino IDE, Arduino Uno/Nano, sound frequency analysis, IoT integration.

Publications

Tang X, **Jin J.**, Li X, Cohen G. (2025) High Performance, High Risk? A Meta-analytic Audit (2022-2025) of Social-Media Depression Models and Their Ethical Gaps. *The 2025 International Conference of The Computational Social Science Society of Americas*, Santa Fe, NM,

Tang X, **Jin Z.**, Ma E, Li X. (2025) AI in the Wild: A Meta-Analytic Evaluation of Depression Detection from Social Media Data *AAAI 2026 Artificial Intelligence for Social Impact Track*

Jin Z., Tang X, Li X, Cohen G. (2025) Social Context in the Machine: Predicting Depression from Multimodal Online Behavior *SPSP*

Certifications

Certificate: IT Fundamentals, First Aid, Dev Ops Fundamentals, Agile Project Management, Principle of Programming, Microsoft Azure Active Directory, Change Management, Programming Fundamentals, Discover Cyber Security, Addressing disabilities Inclusions and Barriers to Accessibility, Power BI, Microsoft Automation