

Max Jin

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EDUCATION

University of Waterloo

Sep. 2023 – Apr. 2028

Bachelor of Mathematics, Honours Statistics Co-op

Waterloo, ON

- Relevant Courses: Algorithms, Computer Systems, Network Flow Theory, Statistics, Number Theory
- President of Events, UW Badminton Club

EXPERIENCE

AssistIQ

Sep. 2026 – Dec. 2026

Software Engineering Intern (Incoming)

Toronto, ON

- Building REST APIs, web/iOS features, and CV pipelines to track material usage and optimize billing efficiency in health systems, using **TypeScript**, **React**, **Swift**, and **Python**.

Miovision

Sep. 2025 – Dec. 2025

Data Science Intern

Kitchener, ON

- Architected large-scale ELT pipelines using **Snowflake** to process **400M+** records across **30+** regions, reducing data load times by **65%**
- Engineered **PowerShell** scripts to automate ingestion of raw JSON files from **AWS S3**
- Resolved dashboard load failures by using **Parquet** to achieve **100x** compression on annual traffic data
- Developed **Python** scripts to validate ingested data prior to downstream transformation in **Snowflake**

Greenhouse

Jan. 2025 – Apr. 2025

Data Analyst Intern

Mississauga, ON

- Diagnosed and resolved a silent failure in a legacy **JavaScript** service affecting **20%** of **Shopify** sales, eliminating **40+ hours/week** of manual corrections, and added logging to flag future edge cases
- Developed a **Python/OpenCV** pipeline to detect product containers that bypassed the sanitation step, storing flagged events in **Azure Blob Storage** and syncing results to Excel for review
- Implemented a **Power Automate** workflow that uses a **Python Azure Function** to transform machine downtime data, which then uses **PowerShell** to send alerts via Microsoft Teams, cutting downtime by **50%**

University of Waterloo

May 2024 – Aug. 2024

AI and Cloud Solutions Intern

Waterloo, ON

- Coordinated **Jira**-based sprint planning, delivering project milestones **15%** ahead of schedule

PROJECTS

Interactive NBA Shot Chart Visualizer | *React, FastAPI, Redis, Vercel, Next.js, Three.js*

- Built a full-stack web app using **React**, **Next.js**, and **Three.js**, rendering 3D shot charts for active NBA players
- Developed a **FastAPI** backend service that fetches and aggregates shot data from the NBA API
- Implemented **Redis** caching to reduce repeated NBA API calls, resolving rate-limiting failures

Paper Trading Platform | *React, Next.js, PostgreSQL, Vercel, Supabase, Finnhub, Yahoo Finance*

- Built a full-stack paper trading app in **TypeScript** and **React** with live stock quotes and interactive charts
- Integrated **Supabase Auth** for user authentication and **PostgreSQL** to track portfolio state across sessions

Audio Generation with Transformers | *Python, NumPy*

- Implemented **transformer architecture** from scratch to generate new audio sequences from short samples
- Built key components including **token embedding**, **self-attention**, and **backpropagation**

Handwriting to LaTeX Converter | *React, FastAPI, Gemini API, WebSockets, Vercel, Next.js*

- Built a two-device app converting handwritten math notes into live **LaTeX**, pushing real-time updates from an iPad canvas to a laptop via **WebSockets**, using **Gemini API** for end-to-end handwriting recognition

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Javascript/TypeScript, Swift, Java, Bash, PowerShell, SQL

Tools: Git, Azure, AWS, Vercel, Redis, Docker, Supabase, PostgreSQL, MySQL, Snowflake, Grafana

Libraries/Frameworks: React/React Native, Node.js, Next.js, Express, Three.js, FastAPI/Flask, Tailwind

Data/ML: PyTorch, Scikit-Learn, OpenCV, PySpark, Pandas, NumPy, R, MATLAB, Gemini API, Claude API