

Matthew Nesbitt

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Education

McMaster University

Sep. 2022 – May 2026

Bachelor of Engineering: Level 3 Software Engineering (Co-op) – CGPA: 3.9/4.0

- **Courses:** Operating Systems, Database Design, Concurrent Systems, Software Testing, Software Design & Requirements

Skills

Languages: Python, Java, TypeScript/JavaScript, C/C++, Bash Script, SQL, HTML, CSS, LaTeX, MATLAB

Technologies: React.JS, Node.JS, SQLite, React Native, Electron, gevent, kivy, framer-motion, OpenCV, spaCy, Junit, unittest, jest

Tools: git, Linux, Docker, Jenkins, Jira, MS Office, Azure Blob Storage, GCS, Amazon S3, Make, rpm, dpkg, UML, Sonarqube

Experience

Software Design Engineering, Intern – Burlington, ON

May 2025 – Current

Evertz Microsystems – Python, Linux

- Working to bring a large, aging Python 2 codebase into the future by methodically porting to Python 3, while ensuring **no customer-facing interruptions** through **strong adherence** to software best-practices and guidelines.

Software Design Engineering, Intern – Burlington, ON

May 2024 – Aug. 2024

Evertz Microsystems – Python, gevent, Docker, Jenkins, Make, Linux, Amazon S3, Azure Blob Storage, GCS, dpkg, cron

- Helped develop the **DreamCatcher** live replay system, in-use by **major broadcasters across the globe**
- Improved average repository build times by over **2x** by implementing **build caching** using **Docker layers**
- Direct-to-cloud video export **streaming** using pipes to create a **13% faster** export & upload process
- Implemented a **filesystem in userspace** leveraging **FUSE** to intercept **FFMPEG's** process of writing video files
- Slashed integrated video upload times by over **6x** to **Azure blob storage** by **chunking & parallelizing** file uploads

Extracurricular

Director of Projects – Hamilton, ON

Jul. 2024 – Current

McMaster AI Society – Leadership, Organization, Hiring

- **Interviewing, hiring and on-boarding** Team Leads for the 2024-25 season
- Expanding the projects division by **40%**, and orchestrating a **team of 30+** to deliver highly advanced, impactful projects
- Work with other members of MacAI leadership to leverage a **~\$4,000** budget to bring MacAI teams to **CUCAI 2025**

Project Lead – Hamilton, ON

Oct. 2023 – Jul. 2024

McMaster AI Society – Python, spaCy, AI/ML

- Spearheaded *NoteFlow*, an **AI based** summarizer using **spaCy** pipelines, **T5 transformers**, and the **TextRank** algorithm
- Contribute to, while also coordinating a tight knit **team of 6** to work on the development of *NoteFlow*
- Present *NoteFlow* at **CUCAI 2024** (Canadian Undergraduate Conference for AI) in Kingston, Ontario

Projects

Eaty – TypeScript, Electron, React, SQLite, jest, framer-motion

- Meal planning made easy: Stores all your recipes, and helps plan your day based on your calorie goals
- Complete recipe entries stored in an **SQLite database**
- Available as an executable, made with **Electron**, tested with **jest**, and animated with **framer-motion**

Git-auto-commiter (GAC) – Python, gevent, rpm, dpkg, systemd, package creation and maintenance

- Powerful, automated, repository management hidden behind a **simple CLI**
- Back-end daemon managed through **systemd** uses **gevent** to monitor **unlimited** repositories **concurrently**
- Available on **Fedora, Debian** and derivatives as **RPM** and **DEB** packages