

Enoch He

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EDUCATION

University of Waterloo

Sep 2023 - Apr 2027

Bachelor of Computer Science, Artificial Intelligence Specialization

GPA: 3.7/4.0

Courses: Algorithms, Data Structures, C++ Object-Oriented Programming, Operating Systems, DB Management, Compilers

SKILLS

- **Languages:** Python, C/C++, Java, TypeScript, JavaScript, PHP, HTML/CSS, SQL, Bash, ASM, Racket
- **Frameworks/Libraries:** React.js, Nest.js, Langchain, jQuery, MUI, Tailwind CSS, Bootstrap, Selenium
- **Technologies/Tools:** PostgreSQL, MongoDB, Firebase, Node.js, Docker, Bruno, Postman, GitHub/Git, Linux

EXPERIENCE

University of Waterloo

Sep 2025 – Dec 2025

Undergraduate Research Assistant

Waterloo, Canada

- Working under Prof. Renée Miller to develop **autonomous agents** that verify model card metrics against benchmark sources and evaluate the quality and consistency of newly discovered tables in model lakes using LangChain, AutoGen, and Camel

Marsh McLennan

Apr 2025 – Aug 2025

Software Engineer Intern

Toronto, Canada

- Led the development of an **AI-driven email classifier and case automation backend system** to streamline case management for financial operations across **21 domains**, using Langchain, Nest.js, TypeScript, Docker, and MongoDB
- Developed a **RAG pipeline** with OpenAI embeddings using **cosine similarity vector search**, **prompt augmentation**, and **adaptive feedback loops** to boost LLM classification accuracy by **8×** and automate context-aware case generation
- Built a containerized **optical character recognition** microservice with OpenCV, Tesseract, and Flask to extract text from multilingual email attachments using preprocessing techniques like **image rotation correction**, **dilation**, and **noise removal**
- Ranked in the **top 5% globally** in Marsh McLennan's Bug Bash by **resolving npm and SAST vulnerabilities** using Snyk
- Authored technical documentation and constructed **12** Visio diagrams for application/integration architecture solutions

Polaris Intelligence

May 2024 – Aug 2024

Software QA Developer Intern

Toronto, Canada

- Pioneered the implementation of **PHPUnit testing**, integrating **150+ functional tests** for Symfony controller endpoints and DOM crawler testing, automating workflows to save **3+ hours per week** using PHP, PHPUnit, and the Doctrine ORM
- Expanded test coverage by **~10%** with Python Selenium regression and smoke tests before transitioning to PHPUnit tests
- Enhanced **UI/UX** by developing and refining React.js components with CSS and jQuery to modernize PHP Twig templates
- Used SQL to rigorously test WebSocket connection interactions, create indexes, and remove **35+ GB** of redundant data
- Identified and thoroughly documented **200+** bugs in Jira, streamlining resolution processes to improve product quality

SlimeScholars

Dec 2023 – April 2024

Front-End Developer

Waterloo, Canada

- Revamped the gameplay tutorial system UI and content using **10+** Figma designs, and modified the backend tutorial model to boost reusability and maintenance efficiency
- Created **3** dynamic webpages and **15+** reusable React.js components using TailwindCSS to enhance UI consistency

PROJECTS

Verbalyst |

- Received **"Best Web Award"** and **\$2750** in prizes out of **700+** other hackers in Ignition Hacks v.3 (2023) for developing Verbalyst, a platform to improve speech articulation through AI-driven feedback
- Leveraged Python for the back-end analysis of transcription data, JavaScript for audio/camera recording, Bootstrap and TailwindCSS for front-end, and Google Vertex AI's PaLM-2 LLM for generating insights with **prompt engineering**

Summazon |

- Developed a full-stack application using Next.js, Tailwind CSS, Python, and Flask, integrating Playwright for **Amazon review web scraping** and Google Vertex AI's PaLM-2 LLM for automated data-driven summaries to inform purchasing decisions
- Built **automated pipelines** in Python to process Amazon reviews, transforming raw data into KPI-based insights