Jordan Lau

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Education

University of Ottawa   September 2021 - Present

Honours Bachelor of Science in Computer Science and Minor in Linguistics.
- CGPA of 9.73 (10-point scale).
- Key projects: analysed large datasets in **Python** using **NumPy** and **Pandas**, implemented supervised learning algorithms with **Keras** in **Python,** and designed websites with UX principles in mind using **Node.js** and **React**.

Skills

- **Python, Java, C++, C, R, Go, TypeScript** and **JavaScript.**
- **NumPy**, **Pandas**, **MatPlotLib**, **Keras**.
- **HTML, CSS, TailWindCSS, Node.js, Vue.js** and **React.**
- **SQL** (PostgreSQL) and **MongoDB** (CLI and Atlas)**.**
- **Linux, VSCode**, **Azure DevOps**, **Jira**, **Git Bash**, **GitHub** and **GitLab**.
- B2 proficiency in French (CEFR scale).
- Excellent communication and teamwork skills.

Work Experience

Government of Canada, Finance   May - August 2024

Student Software Developer
- Independently identified issues, created tickets in **Azure DevOps**, developed solutions in **JavaScript** with **Vue.js**, validated solutions against business requirements, published branches and submitted **Git** PRs to the "dev" environment.
- Designed improved code snippet copy buttons that help the user identify exactly what code they are copying, using the **TailWindCSS** and UX principle of "mapping."
- Developed support for PDF file types, including research on best code libraries.
- Assisted clients in **Agile** sprints to prompt-engineer personalised assistants on LLM application.

Government of Canada, National Defence   September - December 2023

Student Software Developer
- Researched 10+ antivirus software providers, dozens of software versions and hundreds of processes to develop analytics in **Python** for the Government's Threat Surface dashboard.
- Created CI/CD time-triggered job to automate execution of script using **Concourse**.
- Tracked tickets using **Jira** kanban board and participated in code review for pull requests on **GitLab**.
- Utilized **Linux** and **MongoDB**.

uOttawa Engineering Outreach   May - August 2023

Bilingual Instructor
- Led STEM camps and developed activities. Topics included **JavaScript** and **Python**.

Projects

Hand Gesture Detection
- Trained Neural Network with **Keras** on more than 145,000 images of hands from HaGRID (a varied open source dataset) to classify 29 gestures.
- Preprocesses data using **Google AI**'s Mediapipe Hand Landmarking.
- Performs live hand detection and prediction via webcam using **OpenCV**.
- Source code written in **Python**, with **Pandas**, **NumPy** and **SKLearn** libraries.
- Achieved 85 to 90% accuracy on the validation dataset.

Google vs DeepL Experiment
- Self-directed experiment comparing the difference in translations done by Google Translate API with DeepL API for a large English to French dataset. Early results show that the services are highly similar.
- Uses two metrics: modified version of Levenshtein Distance and METEOR, which I have implemented in **C++** to improve speed on large texts. Text is pre-tokenized (with the **HuggingFace** transformers library) for better accuracy.
- Written in **Python** using **NumPy**, **Pandas** and **MatPlotLib**.
- Contains unit tests using **Python**'s native test library.

Personal Website
- Personal website to showcase myself as a student, tutor and programmer.
- Written with **HTML**, **Bootstrap**, **JavaScript** and **JQuery**. Hosted with **GitHub** Pages.
- Improved usability by studying feedback from a variety of users.
- Available in English and French.

Hotel Management App
- Team project for CSI 2132 allowing users to book rooms in hotels from various chains and locations. Written with **HTML**, **CSS**, **TypeScript** and **DaisyUI**.
- Database implemented with **PostGreSQL**. Front-end hosted with **React**. Back-end hosted with **ExpressJS**.

Awards

University of Ottawa   September 2022 - Present
Merit Scholarship
- Valued at $1000 per semester.

Canadian Hearing Services   August 2021 and August 2023
National Scholarship
- Valued at $3000 per year. Declined in 2023 in order to accept an internship.

University of Ottawa   September 2021
Entrance Scholarship
- Valued at $4000.