Leo You

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Technical Skills

Languages: C++, C, Python, JavaScript, TypeScript, MATLAB, VHDL, Bash, SQL, HTML/CSS
Frameworks and Libraries: TensorFlow, OpenCV, Pandas, NumPy, Matplotlib, React, Next.js, Express.js, Node.js, Django, MongoDB, Passport.js, Knex.js, OAuth 2.0, Firebase, Tailwind CSS
Tools and Technologies: Linux/Unix, Git, SVN, Docker, GCP, AutoCAD, SolidWorks
Hobbies: Painting, Literature, Kickboxing, Badminton, Hiking

Experience

Software and Data Engineering Intern May 2024 – Aug 2024
EnStream LP *Toronto, ON*

- Developed products for identifying and detecting clusters of telecom fraud with **Python** and **SQL** for Canadian telecommunications, banking, and insurance partners.
- Analyzed distributions and time-series indicators curated from customer, device, and activity data with **Matplotlib** and **Pandas** to extract consumer behaviour patterns, develop a trust-scoring function, and curate high-value indicators for supervised machine learning.
- Designed a product demo website with **Next.js**, **MySQL**, and **Docker** to demonstrate multifactor authentication based on verifying the request origin with the telephone number on file.

Software Developer Intern Sep. 2023 – Dec 2023
Arctic AI *Toronto, ON*

- Consulted on and led healthcare administration application development for SaaS startup, reducing labor intensity by **95%** and generating **$28,000** in revenue.
- Designed REST APIs and tools for scalable content and data storage, email campaigns, and user management features secured by JWT cookie-based authentication using a **MySQL**, **Express.js**, **TypeScript React**, and **TypeScript** stack and deployed with **Docker** on **GCP**.
- Developed internal SDK and codebase for database management and migration, secure authentication, and microservice standards to streamline application development.

Software Developer Co-op Jan. 2023 – April 2023
Martinrea Hydroform Solutions *Brampton, ON*

- Oversaw production line camera vision project that determines correct machine-line part presence and orientation with **OpenCV** image processing, reducing production downtime by **1.14%** and saving **$60,000** per year.
- Scripted object detection and mask generation programs using **OpenCV** and **NumPy**, detecting loading accuracy for 47 distinct automotive components.

Projects

Rotary Encoder-based Gauge | *Arduino, SolidWorks, 3D-Printing*

- Created and calibrated a gauge that converts encoder ticks to linear distances with an accuracy of ±3.5 mm, designing and prototyping device chassis, transmission rack, and gear pinion to completion within 3 days.

Journal++ | *TensorFlow, JavaScript, Python, React.js, Django, Git*

- Developed a full-stack web application serving a **NLP**-powered smart journal that organizes thoughts based on sentiment and topic.
- Trained a sentiment classification machine learning model with **TensorFlow** achieving **93%** accuracy.

Daily Automatic Date Scribe | *SolidWorks, 3D Printing, Rapid Prototyping*

- Developed an autonomous LEGO EV3 robot that draws and updates the date on a whiteboard, integrating code for path logic, movement, and calibration and prototyping custom mount to stabilize marker movement.

Spotify to YouTube Playlist Migration | *JavaScript, OAuth 2.0, Firebase*

- Developed a Google Chrome extension with Google and Spotify **OAuth 2.0** and developer APIs to authenticate and migrate a user's Spotify playlist to YouTube.

Education

University of Waterloo Waterloo, ON
Candidate for Honours B.A.Sc. in Mechatronics Engineering *April 2027*
GPA: 93.44%
Relevant Coursework: Data Structures and Algorithms, Real-Time Operating Systems, Statistics, Linear Algebra