

Fabian Jung

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TECHNICAL SKILLS

Languages: Python, C/C++, HTML/CSS, Java/Java Scripts, VHDL

Frameworks/Database: Django, Flask, React, Node.js, Bootstrap, Tailwind, PostgreSQL, MySQL, MongoDB, SQLite

Developer Tools: Git, Github, VS Code, Altium(Kicad), IntelliJ, CLion, AWS, MySQL Workbench, AutoCAD, Fusion 360, Blender

EXPERIENCE

Electrical Engineering

January 2024 – Present

Waterloo Electrium Mobility

Waterloo, ON

- Utilized advanced **PCB design** and **ESC** integration to enhance electric bike performance by **20%**.
- Designed **anti-spark** circuit schematics and PCB layouts using KiCad, enhancing electrical safety and reliability.
- Enhanced bike efficiency with precise **spot welding** and **soldering** to boost power and durability.
- Ensured product excellence by selecting top-tier components, and **optimizing** bike reliability and performance.

Firmware Developer

November 2023 – July 2024

Waterloo Formula Electric

Waterloo, ON

- Python-driven **HIL** testing, incorporated **RTOS** to optimize real-time performance and reliability, achieving a **30%** enhancement in electric car component validation.
- Employed **STM32IDE**, **Virtual Box**, and **Vagrant** for precise **firmware analysis** to establish a correlation between code behavior and firmware input.
- Refined **BMU** analysis, enhancing state of charge accuracy by **25%** through C firmware and schematics review, identifying crucial variables.

Web Developer

July 2023

Seoul Restaurant

Bedford, NS

- Worked with senior developer for responsive design; optimize website performance, improving load times by **30%**.
- Implemented new features and maintained existing functionality using HTML, CSS, and JavaScript.
- Conducted regular website **testing** and **debugging** to ensure a seamless user experience.

PROJECTS

Instagram Clone | *Python, Django, AWS EC2, HTML, CSS*

- Built an Instagram clone via Django, integrating SQLite for optimal user and uploaded post data management.
- Integrated features like following, likes, and **real-time** comments to create an engaging user environment.
- Ensured seamless usability across devices through **responsive design**, providing a uniform and efficient user experience.

StyleSync | *MongoDB, Express.js, React, Node.js*

- Developed **StyleSync**, a virtual closet management app, using **MongoDB**, **Express.js**, **React**, and **Node.js**.
- Engineered a React-based interface to manage over **500** clothing items, streamlining user interaction and organization.
- Implemented a recommendation algorithm that increased daily outfit suggestions' relevance by **30%**, enhancing user personalization.
- Deployed the application on a cloud platform, reducing load times by **20%** and ensuring reliable performance.

CERTIFICATES

Azure AI Fundamentals : *Machine Learning, AI Concepts, Azure AI Services*

Certificate

Azure Cloud Fundamentals : *Cloud Computing, Azure Services, Security, Networking*

Certificate

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Engineering in Computer Engineering

Sept. 2023 – May 2028