Vivi Huang
2nd year Computer Engineering Student
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2nd year Computer Engineering Student University of Waterloo

SKILLS

Backend Development: C/C++, Java, Python, Git

Tools: Springboot, Maven, MyBatis, Django, MySQL, PostgreSQL

Courses: Algorithms and Data Structures

Soft Skills: Problem Solving, Communication, Adaptability

EXPERIENCE

•Backend Developer

January - April 2025

JD.com

Beijing

- Part of the Marketing back-end team, manages 500k+ transactions and promotions on a daily basis

- Assisted with emergency notifications in digital marketing platform, studied unit-testing and deploying branches on test servers at a professional level
- Collaborated with software architects and PMs to ensure proper code infrastructure and enhance performance

•Full Stack Developer

May 2024 - August 2024

Adaptive Pulse

Toronto, ON

- Built front-end interface with Vite + ReactJS for Rfx CoPilot web application
- Deploys 1M+ rows of client data using Airbyte and Supabase
- Built Summarizer module in webapp using Langchain and OpenAI LLM, serving 100+ clients
- Programmed full OAuth2 workflow with Github, Google, Dropbox for client filedrop function

•Research Intern

May - August 2023

Chinese Academy of Sciences

Beijing

- Worked on 3D modelling & CAD with COMSOL, SolidWorks
- Performed 100+ COMSOL simulations and proposed heat-sink design that improves heat-efficiency by 23%
- Contributed to deep-sea chassis research with 5 other PhD students and doctoral advisor

PROJECTS

•Smart-Light

September 2023 - January 2024

Firmware Project, University of Waterloo

- Built production-level product using STM32 Microcontroller and STM32CubeIDE
- Designed 3D Model and professional diagrams using AutoCAD and Solidwork
- Programmed 500+ lines in C for dynamic time allocation, sensor detection and user interfaces
- Market size of over 100 thousand customers across Canada

•Relational Graph Program

October 2024 - November 2024

Programming Project

- Programmed a multi-relational weighted graph system, based on a real-life system
- Designed a multitude of commands that explores the graph based on Dijkstra's algorithm, Floyd's algorithm, and memoized DFS
- works for real-life road systems, multi-entity systems, and more

•Study Buddy Learning Platform

November 2023 - March 2024

Educational Website written with Python, Django

- Integrated CRUD functions, URL routing, and customized default Django database with MySQL
- Programmed 1500+ lines using Python for backend functionalities
- Dynamic modules and mobile responsiveness written with TailwindCSS

EDUCATION

Bachelor of Computer Engineering

September 2023 - Present

University of Waterloo

GPA: 4.0

- -98% in intro Programming and 90% in Algorithms and Data Structures
- Courses: Algorithms and Data Structures, Digital Computers, Electronic Circuits

•International Baccalaureate Diploma

September 2018 - May 2023