Hien Tu

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Education

Bachelor of Applied Science, Honours Computer Science Co-op **September 2019 – April 2024**
McMaster University, Hamilton, ON

- Currently enrolled in **level 5** of the **5-year** Computer Science co-op program with a cummulative **GPA** of **4.0** on a 4.0 scale
- Received the McMaster Start Coding's Honorarium for volunteering more than 40 hours with the organization

Related Coursework:

- Algorithms and Complexity **(A+)**
- Discrete Math with Applications **(A+)**
- Introduction to Software Development
- Introduction to Programming - **Python**
- Principle of Programming - **Java**
- Databases - **SQL**

Skills

Programming Language: Python, Java, Shell Scripting (Bash and ZSH), Haskell, Go, Javascript
Software: Git, GitHub Actions, AWS, Docker, Kubernetes, Pylint, Pytest, JUnit, Doxygen, Django, HTML, CSS

Experience

Software Engineering Intern (16-month Co-op Experience) **May 2022 – August 2023**
Sanofi Global Data and AI

- Extensively broadened software development and design thinking skills through developing and maintaining an internal platform using **FastAPI**, **Pydantic**, **SQLModel** and **microservices architecture** that supports hundreds of data scientists and MLOps engineers to research, develop and deploy AI models for healthcare purposes
- Actively learned and applied a wide range of the latest **cloud-native** technologies by developing the platform with Amazon Web Services (**AWS**), containerization platform (**Docker**), Kubernetes (**AWS EKS**), container registry (**AWS ECR**)
- Exposed to **DevOps** process by maintaining and improving **CI/CD pipelines** using **GitHub Actions**, **ArgoCD**, **Helm**, **Terraform** and shell scripting (**Bash**) following **GitOps** approach
- Advanced **communication**, **time management** and **collaboration** skills by replying to approximately **2000** emails from users, in a team of three support members and working with other developers in different time zones
- Exhibited **documentation** skills by creating training guides for new users and developers, documenting new and existing features and updating work progress through Jira tickets

Undergraduate Teaching Assistant **September 2021 – December 2021**
Introduction to Computational Thinking

- Developed **organization skills** by preparing and conducting tutorials to assist students with their knowledge in **Haskell**
- Enhanced **communication skills** through consulting students on the course material using various communication channels, including MS Teams, emails and weekly office hours
- Exhibited **time management** skills by attending weekly meetings with the instructor to report current progress and discuss future work

Projects

DDO Vale Puzzle **July 2021**

- Developed a logic puzzle game with a variety of board sizes from 3x3 to 9x9 using **Java**, **Swing** and **Launch4j**
- Applied and improved object-oriented programming knowledge learned in class and self-educated knowledge to create the game

Sorting Visualizer **February 2021**

- Designed a visualizer to visualize different sorting **algorithms** using **Python**
- Utilized in-class knowledge in Python and sorting algorithms as well as self-taught knowledge in **Pygame** and **PyInstall** to program the visualizer and export into an executable file

Extracurricular Activities

Simple Type Theory - Volunteering Research Assistant **May 2021 – August 2021**

- Assisted professor in developing the Simple Type Theory textbook
- Improved critical and logical thinking through researching exercises, and discovered typographical and logical errors in the textbook
- Tested LaTeX macros and environments for writing expressions and theories in the textbook

McMaster Start Coding - Volunteer and Facilitator **September 2019 – December 2021**

- Visited schools and introduce children of different ages to Computer Science concept
- Taught children design thinking and programming to create pictures and games with an Elm-based tool