

Claire Villanueva

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EDUCATION

Bachelor of Software Engineering, Co-op Option

September 2021-Present

Carleton University, Ottawa, ON

- Third year standing, CGPA: 10.35/12 (A)
- Henry Marshall Tory Scholarship
- Golden Key International Honour Society
- Expected Graduation Date: April 2026

AVAILABILITY

Available for 12 months beginning January 2024

RELEVANT SKILLS, EXPERIENCES AND ACCOMPLISHMENTS

Technical Skills

- Programmed using C language to handle **memory pointers** to learn and perform data structure approaches such as FIFO (queues), LIFO (stacks), and linked lists
- Wrote a dataset analyzer program using Python to organize **CSV files** into readable outputs using sorting algorithms and retrieved specific data using functions containing tuples and sets
- Created GUIs in Python using **Tkinter** and **Matplotlib** to display data plots according to user input by pulling data from Excel sheets using **Pandas** and the built-in CSV module in Python
- Programmed using HTML, CSS, and JavaScript with the knowledge of **CSS containers** as well as HTML id and class attributes to design a website that calculates final grades
- Demonstrated analytical skills by developing **unit test cases** in Java and Python to ensure the functionality of each program performs to its optimal potential
- Used various **IDEs** and coding tools such as Git, GitHub, Eclipse, VSCode, Wing101, IntelliJ and Pelles C to create several programs

Communication Skills

- Clearly presented an engineering design process that included project economics and conceptual design by writing a formal report and creating a video presentation to a non-technical audience
- Collaborated with four team members to design trusses which will support the roof of a hockey arena using forces calculations and engineering drawings of the internal forces on the truss
- Fluent in English: oral, written, reading
- Beginner in French: oral, written, reading

WORK EXPERIENCE

Junior Software Development Engineer Intern

May 2023-August 2023

Ciena, Kanata, Ontario

- Create programs that extracts data from Excel sheets and graphically displays the information onto a GUI using Python and Matplotlib
- Participate in a first-hand customer event called Ciena Vectors by deploying one of my programs that displays frequency graphs pulled real-time from Ciena's labs in front of customers

- Learn and code in a brand-new programming language, Cadence SKILL, to modify coworker's existing code to add more functionalities in a hardware environment, TigerVNC

Front Desk Agent

April 2022-April 2023

Wingate by Wyndham Hotel, Kanata, Ontario

- Use hotel software, SynXis, to check in/check out guests and create reservations
- Work independently in a fast-paced environment and multitask efficiently when handling guests at the front desk as well as over the phone
- Protect clients by enforcing strict precautions when others ask for confidential information about guests such as room numbers, address, and room key distribution

APPLIED PROJECTS

Junior Software Engineer Intern

June 2023-July 2023

Real-Time Data Extract

- Collaborated with a hardware engineer as she operated lab hardware to send real-time data to my virtual computer which allowed me to obtain and manipulate constant new data
- Used Python Tkinter and Matplotlib to frequently update a sine wave graph after every 256 data point iterations and created menu buttons such as pausing and terminating the data pull
- Individually performed intricate planning and code tracing to ensure that new data is constantly and accurately used

Junior Software Engineer Intern

May 2023-July 2023

Mapping Wafers GUI

- Extracted and organized large amounts of data from Excel sheets according to what the manager desired using Python Pandas and Python's CSV module
- Created a map of wafers by plotting the data and its corresponding coordinates found in the Excel sheet as well as plotted histograms based on data from another Excel sheet using Tkinter and Matplotlib
- Programmed a scrollable frame widget that allowed the user to have an easy method to select which parameter (inductance, power, current, etc.) they would like to be plotted and displayed using Tkinter GUIs

Team Leader

September 2021-December 2021

Tool Design Project

- Reverse engineered a Keurig using Autodesk Fusion 360 and hand sketched drawings that featured different aspects such as component, assembly, and isometric views
- Utilized written communication skills to formulate a final report which consisted of all drawing, photo, and virtual deliverables of the project tool as well as explanations of the design scope
- Allocated equal and fair roles for the team to complete tasks and deliverables according to schedule by formulating deadlines and incorporating each member's judgement