Nancy Zou

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Skills

Development: JavaScript, Python, C++, HTML, CSS, Java, C#, MATLAB, Git, SASS
Tools/Technologies: Unity, React, GitHub, Microsoft Azure, Figma, BioPac, AcqKnowledge, SolidWorks, Jira,Slack
Product: Design Thinking, User Research, Personas, Data Analysis, Stakeholder Interviews, Agile Methodologies

Education

University of Waterloo | Bachelor of Applied Science, Honours Biomedical Engineering *Sept 2022 - April 2027*

- **Relevant Courses:** Intro to Biomedical Design, Human Factors in Biomedical Design, Digital Computation (C++), Data Structures & Algorithms (C++), Matrices & Linear Systems (MATLAB), Visual Communications (SolidWorks)
- President's Scholarship of Distinction

Experience

Undergraduate Research Assistant | PhotoMedicine Labs *April 2024 - Present*

- Implementing features in histology gallery website as detailed in Software Research Assistant position, such as annotations and ability to upload images to be displayed
- Currently conducting research into and developing an AI-assisted diagnosis project that detects abnormalities in Photoacoustic remote sensing (**PARS**) tissue samples that indicate illness and/or disease

Software Research Assistant | PhotoMedicine Labs *Jan 2024 - April 2024*

- Spearheaded the design of the user interface for a dynamic website that displays a library of high-resolution histology images using **OpenSeadragon API** and **Figma**
- Leveraged **JavaScript**, **React**, and **HTML/CSS** to create the front-end and back-end components of the responsive website that accesses and displays images stored in **Microsoft Azure Blob Storage** and **NoSQL Azure Cosmos DB**. Developed features such as fullscreen, splitscreen, and synchronized viewers to examine and compare tissues
- Collaborated on the construction of a PARS optical system

Unity Game Developer | Watolink Neurotech Design Team, BCI Gaming *Jan 2024 - Present*

- Collaborated in a team of 8 to design the storyline and visuals of a video game which takes input from keyboard controls and a brain-computer interface (**BCI**) which detects user blinks via electroencephalogram (**EEG**) signals
- Designed and implemented key functionalities to the start and main menus in **Figma** and **Unity** using **C#**. Also coined the game name!
- Participated in connecting the **Neurosity Crown** to the game for precise calibration and gameplay with the user blinks
- Recognized as a Top Ten Finalist for the 2024 IEEE GameSIG Showcase

Keenan Research Summer Student | St. Michael's Hospital, Interventional Psychiatry Program *June 2023 - Sept 2023*

- Provided technical assistance and quality assurance during data acquisition of physiological signals (RSP, ECG, PPG, EDA)
- Leveraged **AcqKnowledge**, **BioPac**, **Excel**, and other technologies for data acquisition, monitoring, and analysis
- Professionally interacted with and efficiently performed QA on data collection for **95+ human participants**

Projects

Clairify Website 🔗 | Frontend Development

- Collaborated closely within a team of 4 to conceptualize the website's UI/UX design using **Jira** and **Figma**
- Designed and developed various pages such as the notes and resources pages using **React**, **Git**, and **SASS** to host resources pages for **400+ students** in the Clairify community

OpenSeadragon Viewer 🔗 | Fullstack Development

- Developed a dynamic website that showcases a series of images and image descriptions for detailed examination and comparison using **OpenSeadragon API**
- Utilized **Javascript**, **React** and **HTML/CSS** to access and display image data from **NoSQL Azure Cosmos DB**