

Kaseya Xia

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EDUCATION

Master of Applied Science in Electrical & Computer Engineering

Expected May 2022

University of British Columbia (UBC), Vancouver, British Columbia

Bachelor of Science in Biomedical Engineering & Electrical Engineering

May 2015 - May 2020

University of Vermont (UVM), Burlington, Vermont, United States

Electrical Engineering GPA: 3.92, graduating honors with summa cum laude

ENGINEERING EXPERIENCE

Software Engineering Intern, UBC, Vancouver, BC

Jun. 2021 – Current

- Develop and optimize multi-player interactive platform using Unity, WebRTC, and WebGL
- Implement and test full stack business intelligence applications using AWS, React and Django
- Identify existing ATS weakness, research, and leverage NLP models to diversify application functionality

Graduate Research Assistant, UBC, Vancouver, BC

Jan. 2021 – Current

- Investigate and develop human head reconstruction deep learning based models for real-time 3D teleconferencing
- Identify Fish-tank-Virtual-Reality latency source and improve system performance by conducting hardware tests
- Assist in developing VR/AR applications and analyzing dataset on Unity platform

Electrical Engineering Intern, Packetized Energy, Burlington Vermont

Jan. 2020 – Aug. 2020

- Test and troubleshoot Packetized Energy custom-made circuits under python environment
- Assist control algorithm development and improve customer product experience by collaborating with data scientists
- Perform PCB design using Eagle, single layer PCB production, and multilayer PCB research

Engineering Capstone Design Project Manager, UVM, Burlington Vermont

Sep. 2019 – May 2020

- Manage, and evaluate a four-people engineering student team to deliver an 800 hours-worth product
- Establish and revise the project working timeline and hold each team member accountable
- Contribute to building and testing a drone capable of autonomous water sampling and real time data mapping

NASA L'SPACE Academy Participant

Sep.2018 -- May 2019

- Contributed, revised and finished a dummy payload landing system PDR as a team effort
- Made test plans to perform mechanical testing on the honeycomb landing structure
- Designed and simulated CAD model of the landing system in SolidWorks

Biomedical Engineering Lab Assistant, UVM College of Medicine, Burlington Vermont

Summer 2018 – May 2019

- Further improved the functionality of the Bioprinter by remodeling the print head
- Troubleshoot the electronics system in the Bioprinter
- Supported the pilot study to synthesize GelMA Bio Ink and tested ECM application

Biomedical Engineering Undergraduate Researcher, UVM, Burlington Vermont

Summer 2018

- Supported collecting data from patients with MS using biosensors
- Performed EMG, acceleration, and angular velocity signal processing using Matlab
- Interpreted the gained data and found correlation with the MS clinical scores

Audio Video Technician, UVM, Colchester Vermont

Summer 2018

- Performed audio and video editing using Adobe Premiere Pro CC
- Researched and made enduring material from the UVM Medical Center Grand Round
- Synchronized PPT slides and audio file into quality videos

Biomedical Engineering Intern, Technical Service Partnership, Burlington Vermont

May 2017 - May 2018

- Maintained and calibrated medical equipment by conducting safety, performance and quality assurance test
- Participated in engineering project work such as data analysis and coding improvement
- Assisted clinical engineering staff in consultation on medical devices assessment, budgeting and installation

Leadership Experience

President, UVM IEEE Student Chapter, UVM, Burlington Vermont

Spring 2019 – Present

- Organize, execute and lead IEEE bi-weekly general meetings for a group of 20 members
- Set monthly goals, oversee electronics projects, and hold other officers accountable
- Co-lead, research, and test in the drone development project

Lead Residential Advisor, UVM Reslife

2015 Fall- 2019 Spring

- Supported, advised, and helped 30-40 students for their residential and academic concerns
- Built community and promoted diversity and inclusion by leading RP events and meetings
- Adapted to different learning and leadership styles to effectively create a productive and safe workplace for students and employees alike.

Organizer, TEDxUVM, UVM, Burlington Vermont

Spring 2016

- Designed, planned, and implemented all logistics for the event
- Led and oversaw a 5-member core team and a 20-member volunteer team
- Invited, persuaded and communicated with 12 speakers to give talks on specific topics

Senator, UVM Student Government Association (SGA), Burlington Vermont

Spring 2015-Spring 2016

- Maintained relationship with 40 other senators and actively participated in weekly senate meeting
- Communicated between students, faculty, staff, administration to address student concerns, and voted for bills to solve relevant problems
- Supported student body by social media, tabling and SGA community service events

Volunteering Experience

Volunteer, Generator Maker Space, Burlington Vermont

May 2017 – March 2018

- Worked at front desk to respond to phone calls and direct customers to related sections
- Maintained a clean, fair and comfortable environment for the maker space
- Troubleshoot problems on the laser cutter and 3D printer

Volunteer, LGBTQ Rainbow Banquet, UVM, Burlington Vermont

Spring 2015

- Assisted staff in arranging event space and clearing up after activities

- Worked in a team with other volunteers to keep support conference attendees

Organization

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| • President, Institute of Electrical and Electronics Engineers (IEEE) UVM Chapter | Spring 2019-current |
| • Tau Beta Pi Engineering Honor Society | 2016-current |
| • Member, American Society of Mechanical Engineers (ASME) | Fall 2017- current |
| • Biomedical Engineering Society (BMES) | Fall 2018-Fall 2019 |