

Yue (Kathy) Zhuang

San Francisco Bay Area, CA | kathy_zhuang@berkeley.edu
[linkedin.com/in/yue-kathy-zhuang](https://www.linkedin.com/in/yue-kathy-zhuang) | kathyzhuang.github.io

Education

University of California, Berkeley

M.Eng. in Electrical Engineering and Computer Science

Visual Computing and Computer Graphics track

UC Berkeley College of Engineering Opportunity Grant (2023)

Aug 2023 – May 2024

Berkeley, CA, USA

University of Toronto, St. George Campus

B.A.Sc. in Engineering Science

Machine Intelligence major, Robotics minor

Engineering Science Research Opportunity Fellow(2020), Dean's List (2018-2023), Dean's Merit Award (2018)

Aug 2018 – Jun 2023

Toronto, ON, Canada

Professional

Amazon.com, Inc.

Software Development Engineer Intern | Consumer Payments

• Improved a platform utilizing TypeScript, JavaScript, and Kotlin to promptly alert onboarded clients about payment method partner outages, effectively mitigating potential negative impacts.

• Successfully deployed the application to production, facilitating its adoption by over 20 payment methods.

May 2023 – Jul 2023

Vancouver, BC, Canada

Amazon.com, Inc.

Software Development Engineer Intern | Consumer Payments

• Created a RESTful API in Java and Kotlin allowing CRUD operations to mock the behavior of third-party partners

• Implemented API integrated with various AWS technologies such as ECS and S3 Cloud Storage to allow for the current workflow to be accurately modelled and efficiently tested

May 2022 – Jul 2022

Seattle, WA, USA

Huawei Technologies Canada Co., Ltd

Machine Learning Engineer Intern | Human-Machine Interaction Lab

• Developed eye region detection/object tracking modules with machine learning models and integrated them into in-car Infrared-based eye gaze tracking system

• Trained machine learning models that took RGB facial images as input and provided real-time video-based eye gaze tracking on laptops/smartphones

May 2021 – Apr 2022

Markham, ON, Canada

Research

Robot Vision and Learning Lab, University of Toronto

Research Assistant, Supervised by Profs. Florian Shkurti & Animesh Garg

• Developing a pipeline for injecting realistic sensor noise into depth images in a synthetic RGB-D transparent object dataset using generative models such as CycleGAN and Diffusion

• The synthetic dataset is used in the training of a transparent object detection network in a perception system used to manipulate robot arm in a chemistry lab setting

Jun 2022 – Present

Toronto, ON, Canada

BMO Lab in Creative Research in Arts, Performance, Emerging Tech & AI

Research Assistant, Supervised by Prof. David Rokeby

• Used CLIP to guide search through latent space of VQGAN to generate panoramic voice scenes in real time

• Optimized system to generate scrolling images quickly and fluidly through vector quantization

• Implemented Open Sound Control and Pytorch Distributions to allow users to control the generation of animation using text descriptions in live performance

Feb 2021 – Feb 2023

Toronto, ON, Canada

Intelligent Sensory Microsystems Lab, University of Toronto

Computer Vision Research Assistant, Supervised by Prof. Roman Genov

• Integrated auto-tuning structured light machine learning model on novel Coded-Exposure-Pixel camera to realize quick 3D image construction

• Generated disparity and albedo maps from structured light using Python, Bash, and Matlab

• Developed demos for Coded-Exposure-Pixel cameras on 3D reconstruction and multispectral imaging

May 2020 – Sep 2020

Toronto, ON, Canada

Information Systems Group, University of California, Irvine

Research Assistant, Supervised by Prof. Chen Li

• Performed social media & environmental data visualization/analysis in machine learning pipeline to predict wildfires

• Implemented web scraper of real-time tweets in Python; integrated Twitter API to retrieve 1000+ tweet data daily

• Designed/developed Leaflet map layers to visualize fire event polygons with Angular2+ and TypeScript

Jun 2019 – Aug 2019

Irvine, CA, USA