Qing (Tim) Liu

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TECH SKILLS

Programming Languages:
C#, C++, Swift, Python, SQL,
Bash/Shell

Tools & Frameworks:
Unity, SwiftUI
AngularJS, ASP.NET, MVC
SQL Server, Oracle DB

SDLC DevOps:
Linux, Git, Agile, JIRA, Docker

EDUCATION

Bachelor of Computer Science,
University of Waterloo
Sept. 2018 - Present, 4A
Grade: 91 (Dean's list)

AWARDS

2021-2022
UWaterloo President's Research
Scholarship x 2
2018
UWaterloo President's
Scholarship of Distinction

PROJECTS

2D MOBA Game (C#, Unity)

VR widgets (OpenVR, Oculus
Quest, Godot)

Hand Segmentation (Python,
OpenCV)

EXPERIENCE

Undergraduate Research Assistant
University of Waterloo HCI Lab   September 2020 - Present
Waterloo, ON

- Researching with Prof. Jian Zhao in the area of haptics and VR, with a focus on User Interface implementation (Swift), user data analysis and paper writing
- Submitted and will publish a **co-first** authorship paper in **CHI 2022**
- Collaborating on a project about VR streaming, will submit to CSCW 2022

Software Engineer Intern
Microsoft   Jan. 2022 - Present
Vancouver, BC

- Working on Gears game series as a software engineer in the XBOX studio

Software Engineer Intern
Unity   May 2021 - Aug. 2021
Montreal, QC

- Worked on Unity Reflect, a 3D BIM Viewer that boosts the data visualization of Architecture, Engineering & Construction
- Built the new animation system that can combine different animations into a composed one, and created 5 new animations
- Implemented UI widgets like Dropdown lists, search bars and the corresponding unit tests (Unity Editor, C#)

HCI Research Engineer Intern
Huawei Human-Machine Interaction Lab   May 2020 - Aug. 2020
Markham, ON

- Completed 2 software & hardware prototypes (VR, Arduino) and integrated a hand gesture recognition model into production system
- Implemented image segmentation on hands (Python, OpenCV) and integrated it into the gesture recognition system
- Developed a VR application (Godot, OpenVR) to research & simulate haptics of widgets such as buttons, sliders and knobs

Software Engineer Intern
Bank of Montreal Capital Markets   Sept. 2019 - Dec. 2019
Toronto, ON

- Developed 2 full-stack data visualization websites from scratch with ASP.NET MVC (Razor, HTML, C#) as web framework and Oracle DB & SQL Server as database tools to visualize bond information
- Built 2 multithreading Windows services (WPF, .NET) that linearly interpolates real-time bid yield & bid price

PUBLICATION

Pengcheng An*, Ziqi Zhou*, **Qing Liu***, Yifei Yin, Linghao Du, Da-Yuan Huang, and Jian Zhao. 2021. VibEmoji: Exploring User-authoring Multi-modal Emoticons in Social Communication. arXiv:2112.13555 [cs] (Dec. 2021).
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