# Henry Xia

henryxia.ubc@gmail.com github/linkedin: ehnryx

# **Profile**

Competed in programming competitions for five years and math competitions for nine years, including both individual and team competitions. Experienced in algorithms and data structures. Worked with computer vision models, web apps, front-end, and back-end. Familiar with Linux environments.

Programming Languages: C, C++, Python, C#, Java, Golang

# Education

## University of British Columbia, Vancouver, Canada

September 2016 - May 2021

COMBINED HONOURS IN COMPUTER SCIENCE AND MATHEMATICS

Courses include Machine Learning, Software Engineering, Theory of Computation, Combinatorial Optimization, Probability Theory, Real/Complex Analysis, Analytic Combinatorics, Analytic Number Theory, Discrete Math

# Experiences

## NSERC Undergraduate Student Research Award

May 2020 - August 2020

- Studied tree embeddings for outerplanar graphs, and applied results to the maximum edge-disjoint paths problem.
- Submitted to the Symposium on Discrete Algorithms. https://arxiv.org/abs/2007.10537

#### FACEBOOK AI SOFTWARE ENGINEER INTERNSHIP

September 2019 – November 2019

- Experimented with different attention gates and fusion architectures in multimodal models for video classification
- Implemented gating modules and fusion architectures using PyTorch and observed improvements in accuracy

# MICROSOFT SOFTWARE ENGINEER INTERNSHIP

May 2019 - July 2019

- Created a dashboard to display the deployment progress for the Azure Kubernetes Service
- Designed and implemented both the front-end and the back-end components
- Learned Golang with Docker and Kubernetes for deploying the dashboard

#### MICROSOFT GARAGE SOFTWARE ENGINEER INTERNSHIP

May 2018 - August 2018

- Collaborated with BC Cancer to create a tool for visualizing cancer cells
- Designed and developed a mixed reality app and a companion web app using Unity and C#

## UBC Competitive Programming Club

September 2016 - Present

- Discussed problems and implemented algorithmic solutions with other members
- Created interesting problems for practices and tryouts for our ICPC teams
- Represented UBC in international competitions

## Achievements

• Qualified for Facebook Hacker Cup Round 3 (Top 200 in a worldwide competition)	August 2020
• 1st in Division One, ICPC Pacific Northwest Regional	November 2019
<ul> <li>Teams of three compete to solve algorithmic problems for five hours</li> </ul>	
• 45th at ICPC World Finals	April 2019
• 120th in North America (top 3%), Putnam Math Competition	December 2018
• 1st in Division One, ICPC Pacific Northwest Regional	November 2018
• Stanley M Grant Scholarship in Mathematics	September 2018
• Qualified for Google Code Jam Round 3 (Top 1000 in a worldwide competition)	May 2018
• 130th in North America (top 3%), Putnam Math Competition	December 2017
$\bullet$ Trek Excellence Scholarship for Continuing Students (top $5\%$ at UBC)	September 2017
• 2nd in Division Two, ICPC Pacific Northwest Regional	November 2016