





# Annie Zou

University of Waterloo, Systems Design Engineering

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## SKILLS

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**Programming:** C++, Unity (C#), Android (Java/Kotlin), iOS (Swift/Obj-C), Python, CI/CD (Jenkins), Terraform, Ansible

**Design:** Adobe Photoshop, Adobe Illustrator, Figma, Google Material Design, Apple Human Interface Guidelines

**Other:** Git, Agile, Jira, Docker, Kubernetes, Google Cloud Platform, Computer Vision, Unit/UI Testing

## WORK EXPERIENCE

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### Fullstack Augmented Reality Developer @ Interaptix

May - Sept 2020

- Integrated Jira API into Hololens and **Android** cross-platform AR **Unity** app to position tasks in world space using **ARFoundation** and **Google ARCore**
- Reduced **Django REST API** load through migration from JSON to **Protobuf** data serialization and implementation of coordinate-based data-fetching
- Created **Python** image transformation pipeline using **OpenCV** to enhance user captured images
- Prototyped mock client app which generates outputs over time, mimicking real-time interactions for testing purposes

### AI Data and Software Engineer @ National Bank of Canada

Sept - Dec 2019

- Refactored **Python** API to employ horizontal scaling, reducing **Google Kubernetes Engine** memory usage from 32 GB to 6 GB and lowering costs by \$450 per month
- Increased process automation through development of **Jenkins** CI/CD pipeline and provisioning of Google Cloud Platform infrastructure through **Terraform** and **Ansible**
- Designed feature engineering **Pyspark** scripts for **Dataproc** to process over 170 million data points

### Quality Assurance Analyst @ The Weather Network

Jan - April 2019

- Improved UI/UX of 3 million+ active mobile users by refactoring code from **Obj-C** to **Swift** and **Java** to **Kotlin** and improving user interfaces to follow Material Design and Human Interface Guidelines
- Executed **test-driven development** and validated 20 major use cases through unit/UI testing in **JUnit**, **Espresso**, **XCTest**
- Contributed to development of cross-platform notifications landing page in **Flutter**
- Prototyped image resource microservice with **Flask** and **Docker**

## PROJECTS

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### Hide.me

May 2020 - present

- Constructed a series of models using OpenCV and Tensorflow for obscuring identifying features of protestors

### Computer Vision Research Assistant @ UWaterloo

Jan - April 2020

- Researched novel context-driven computer vision techniques to extract abstract data using TensorFlow and Python
- Conducted technical and market research for competitive analysis

### PhysioCare - Hack the North 2019 Finalist

Sept 2019

- Developed **Android** telemedicine app that streams sensor data across clients using **Google Firebase** live data
- 1 of 12 finalist projects selected by judges from 300+ entries

## EDUCATION

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### University of Waterloo

Sept 2018 - April 2023

#### Systems Design Engineering, Bachelor of Applied Science (BASc)

- Awards: Term Dean's List, 3.95 GPA
- Programming Coursework: Digital Computation (C++), Data Structures and Algorithms
- Design Coursework: Introduction to Design, Human Factors in Design, Essentials of Entrepreneurial Planning and Execution