An Qi Wu

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Education

University of Waterloo

CANDIDATE FOR BACHELOR OF COMPUTER SCIENCE, HONOURS, CO-OP   *(Expected) 2017 - June 2021*

- GPA: 88.24% | Term Dean's Honours List | WiCS Grace Hopper Scholarship | President's Scholarship (2000$)

Technical Skills

Languages	Java, Python, C / C++, Go, Bash, SQL, Functional Programming, R
DevOps	Jenkins, Git, CloudFormation, Jira, Docker, Bitbucket, Shippable
Frameworks / Tools	Spring, gRPC / Protobuf, Guice, ROS, AWS, MongoDB, Cassandra, DynamoDB

Work Experience

Software Engineering Intern | Confluent   *May 2020 - Present*

- Working on the Kafka Storage Team.

Undergraduate Research Assistant | University of Waterloo   *Jan - April 2020*

- Area: **Data Management** and **Security**
- Research about database operators over encrypted data under Professor Florian Kerschbaum.

SDE Intern | Amazon   *Sept - Dec 2019*

- Designed, completed and onboarded multiple engineers to a new gateway system that consolidates all forecast override operations and use cases into a single service.
- Implemented the entire service in **Java**, and successfully deployed it to **ECS** clusters in **AWS**.
- Used **CloudFormation** and **Cloud Development Kit** (CDK) to model and provision the entire infrastructure and application resources and set up deployment pipelines.

Server Developer | Kik Interactive   *January - April 2019*

- Rewrote entire chat settings server, including creating a new database in **DynamoDB** and developing a service to parse and retrieve values from XML strings stored in **Cassandra**.
- Migrated over 10 key server components to a microservice architecture via **gRPC**, reducing build and deploy time from one hour to a few minutes.
- Designed and implemented APIs for Kik accounts, chats and groups in **Java** and **Go**.
- Set up **Jenkins** deployment pipelines for four microservices and deployed new EC2 instances to **AWS**.

Software Development Intern | Raven Telemetry   *May - August 2018*

- Wrote and revised **Python** scripts to automate repetitive manual tasks and to improve internal tooling
- Developed new features and reduced tech-debt by refactoring code for Raven's Android app in **Java**.
- Increased mass update time from 2 days to a few hours by fixing concurrency issue with the app's downloader.

Projects

Biquadris   *Nov - Dec 2018*

- Designed and implemented from scratch a 2 player Tetris game in **C++**.
- Included features like ncurses text display, a graphical interface and saving an unfinished game.

Extracurricular Activity

WATonomous - Tech Lead   *Jan 2019 - Present*

- Responsible for managing 20 core members under the Path Planning Team.
- Led development for the global planning module and integrated the dynamic objects layer.

Mathematics Tutorial Centre Tutor   *Sept – Dec 2018*

- Tutored and answered questions in Calculus 1 & 2, two courses taken by over 1000 students, 3h / week.
- Assessed the student's level of understanding and explained different concepts at an appropriate level.