

KAICHENG (Kyle) YAN
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Immigration Status: Lawful Permanent Resident
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QUALIFICATIONS SUMMARY

- **Proficient languages:** Java, Python, C, C++, JavaScript; **also familiar with** C#, PHP, Go, Racket, Ruby, Haskell
- **Experience with** Linux, Android, databases, cryptography, distributed systems, penetration testing, CI/CD
- **Research Interests:** natural language processing, computer vision, computer security

EDUCATION

University of Washington, Seattle, WA August 2016 – December 2020 (expected)

Combined BS/MS in Computer Science (Bachelor's degree obtained in December 2019)

- Cumulative GPA 3.99, Annual Dean's List 2016-2017, 2017-2018, 2018-2019
- Coursework: Software Design and Implementation, Data Structures and Parallelism, Compilers, Data Management, Algorithms, Cryptography, Security, Machine Learning, Deep Learning, Vision, Natural Language Processing, System Programming, OS, Networks, Distributed Systems, VR Capstone

PROJECT EXPERIENCE

Wheelchair VR (Unity/C#) April 2019 – June 2019

A VR wheelchair simulator designed to raise empathy for wheelchair users

- Designed and created two VR environments for the player to navigate around in a virtual wheelchair
- Reduced motion sickness in the VR environments to a minimum
- Tested and debugged the wheelchair controllers, which moved the wheelchair in VR with rotation of the VR remotes

Fault-Tolerant Sharded Key-Value Store (Java) April 2019 – June 2019

A distributed sharded key-value database backed with the Multi-Paxos algorithm

- Implemented the Paxos consensus algorithm from a basic networking framework
- Implemented a fault-tolerant sharded key-value store

Deep Face Recognition with FaceNet (Python) December 2018

A proof-of-concept computer vision application that simulates FaceID

- Implemented a face recognition app with PyTorch and OpenCV with pretrained Inception-ResNet-v1 FaceNet

Instance Segmentation with Per-Pixel Feature Vectors (Python) November 2018 – December 2018

An efficient end-to-end approach for deep instance segmentation

- Designed an approach for instance segmentation with transfer learning from a semantic segmentation model
- Achieved 56% mean validation intersection-over-union accuracy

WORK EXPERIENCE

University of Washington, Seattle, WA September 2018 – June 2019, December 2019 – Current

Teaching Assistant in Computer Networks (CSEP 561), Computer Security (CSE 484) and Foundations of Computing II (CSE 312)

- Held weekly office hours and quiz sections to help students with course material, labs and assignments
- Rated by instructors as "Excellent" TA in every quarter

University of Washington, Seattle, WA October 2019 – Current

Research Assistant at the UW NLP group, under the supervision of Dr. Rik Koncel-Kedziorski and Dr. Noah Smith

- Implemented and experimented neural approaches for unsupervised document summarization

OfferUp, Inc., Bellevue, WA June 2019 – September 2019

Software Developer Intern – Security

- Built a security static analysis tool for PantsBUILD, the company's build system
- Pen-tested the company's web backend application and reported several CSRF vulnerabilities
- Performed security code reviews and architecture reviews for newly added services
- Designed and implemented a secure redirect service that protects users from malicious external links
- Implemented infrastructure-level authorization for internal tools with Okta and AWS API Gateway

Micetek, Inc., Shanghai, China June 2018 – September 2018

Software Developer Intern – Web

- Developed a product feedback application and an event registration platform with PHP and Angular