

# Ronan A. Konishi

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## SUMMARY OF QUALIFICATIONS

- Developed and maintained web and mobile applications for Qualcomm Institute – UCSD Division of Calit2
- Developed and Hosted personal Website/Blog from the Ground Up in Laravel
- Created Huffman Encoding File Compressor and Graph-Based Relationships Projects in C++
- Wrote Research Paper and developed Software in Java for Image Classification using Convolutional Neural Network
- **Technologies used:** Java, Laravel/PHP, C, C++, Python, HTML, CSS, Javascript, MySQL, SQL, React.js, ARM Assembly, AWS, Machine Learning

## EDUCATION

University of California San Diego

Anticipated June 2022

*Bachelor of Science in Computer Science, GPA 3.89*

## WORK EXPERIENCE

**Software Developer**, Qualcomm Institute – UCSD Division of Calit2

(10/2018 – current)

- Developed an event logging data infrastructure system consisting of an API to log and retrieve data and a spreadsheet-style interface in Laravel/PHP
- Developed Authenticated API system that organizes accessibility of AWS S3 data for various users and devices in Laravel/PHP
- Developed Android app with 3D camera for face mesh rendering and eye measurement calculation for Fetal Alcohol Syndrome Disorder (FASD) detection in Java
- Developed Survey (website) for doctors to record thresholds for FASD severity measurements in Laravel
- Updated Jupyter Notebook for FASD detection project to run machine learning models on new data in Python
- Updated UCSD Veterans Affairs app with new Database Migrations, API methods, and UI in Laravel/PHP

## PROJECTS

**Ronankonishi.tk**, Personal Website/Portfolio

(6/2019 – current)

- Developed a Personal Blog/Profile page with User Authentication, CRUD functionalities, and Responsive UI
- Used Laravel, PHP, HTML, JavaScript, CSS, Bootstrap, AWS EC2, Apache, MYSQL, and SQL

**Huffman Encoding File Compressor**, Data Structures Class Project

(11/2019)

- Implemented a Huffman Encoding-Based File Compression and Decompression Program using Bitwise I/O and an Efficient File Header in C++

**Graph-Based Relationships**, Data Structures Class Project

(11/2019)

- Created Path Finder (BFS, Dijkstra's Algorithm), Optimal Spanning Path (Kruskal's Algorithm) for finding various relationships between data in C++

**Convolutional Neural Networks for Skin Cancer Detection**

(8/2017 – 6/2018)

- Developed Convolutional Neural Network Software for Skin Cancer Image Classification in Java

## EXTRACURRICULAR EXPERIENCE

**IEEE at UCSD**, Parkinson's Disease Design Competition

(1/2019 – 4/2019)

- Prototyped Android device worn by Parkinson's Disease patients for hazard detection within the household
- Developed Android smartphone application with Bluetooth functionality to receive data from Arduino using Java

**HackXR**

(5/2019)

- Developed a Virtual Reality survival game for the Microsoft Mixed Reality headset in Unity 3D using C#