# Ho-Ren Kang

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## **Education**

**University of California, Irvine** 

**Bachelor of Science in Computer Science** 

Graduation: Winter 2019 GPA: 3.31

Related Coursework: Software Engineering, Operating Systems, Data Management(SQL), Statistics (R),

Computational Linear Algebra (Matlab), Data Structure Implementation and Analysis, Project in Databases and Web Apps

# **Experience**

# Institute of Electronics and Electrical Engineers (IEEE@UCI) | Vice President

Summer 2017 - Present

- Led external relations committee for corporate outreach and collaboration.
- Mentored IEEE@UCI members in Android development, Java, and Python.
- Set up DHCP servers and ethernet for ZotCade, a large-scale gaming convention for over 500 people.

# Center for Environmental Research & Technology | R&D Intern

Summer - Fall 2016

- Created Android application that provides real-time driving feedback to improve transportation systems research.
- Programmed a traffic signal light timing model, RPM meter, and a speedometer with suggested speed in Java.

## ACM and IEEE Joint Cybersecurity Committee at UCR | Founder

Fall 2015 - Present

• Founded UCR's first cybersecurity club, Cyber@UCR and trained in Windows and Linux hardening.

# **Awards**

## **Cyber Security Award - Unmanned Aerial Systems | Software Developer**

Summer 2016

- Documented how the team addressed cybersecurity for the vehicle systems and ground station for the protection of payload data. <a href="http://www.auvsi-suas.org/competitions/2016/">http://www.auvsi-suas.org/competitions/2016/</a>
- Developed a graphical user interface for easily managing UAVs (unmanned aerial vehicles) in C++ and QT.
- Placed 8<sup>th</sup> internationally at the Association for Unmanned Vehicle Systems International Student Unmanned Aerial Systems Competition (AUVSI SUAS).

#### 1st in Network Defense - Western CCDC | Windows System Administrator

Winter 2016

• Managed and configured several Windows systems to protect a computer network against cyber attacks in the region's largest cybersecurity competition.

#### Best use of Amazon Web Services and Wolfram - Citrus Hack | Back-End Developer

Fall 2015

• Prototyped a web application with 3 undergraduates in under 36 hours that pseudo-randomly generates SAT Math style problems that scale in difficulty based on the user's performance using Java, MySQL, AWS, Wolfram API.

#### **Projects**

#### **NetFlex - University of California, Irvine Project | Project Leader**

Spring 2017 - Summer 2017

- Led a team of 3 to develop a web application that allows users to login, browse, search, and check out movies using Java servlets (server-side programming), JDBC, HTML, MySQL, AWS and Google Cloud.
- Optimized codebase's performance by over 50% by using and implementing Batch insertions, Prepared Statements, and Connection Pooling techniques.
- Improved scalability and security by setting up MySQL master-slave replication and adding reCaptcha and HTTPS.

#### GoMeet - HackUCI | Android Developer

Winter 2017

- Worked with three undergraduates on an Android app that lets users meet other nearby people for social gatherings.
- Implemented profile editing and GPS tracking features using Google Maps API, Firebase, and Java.

## Asthma Alert - HackPoly | Mobile Developer

Winter 2016

- Created an IoT application that communicates via Bluetooth with an Arduino and an oxygen detecting ring to send messages to contacts when oxygen levels are low to prevent lethal asthma attacks using MIT App Inventor 2 and C.
- Designed Android interface and implemented Bluetooth connectivity and automatic text messaging features.

## **Skills**

Operating Systems: Windows, Linux, macOS

Languages: Java, C++, C#, C, Python, SQL, HTML, XML, Mandarin Chinese(spoken)

Tools: GitHub, Eclipse, Android Studio, Visual Studio, Vim, AWS, Google Cloud, VirtualBox, Apache Tomcat, Docker, Bash