HYEONSU B. KANG

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Github · Linkedin · Portfolio: http://cseweb.ucsd.edu/∼hyk149

EDUCATION

University of California, San Diego (UC San Diego) La Jolla, CA, USA
Master of Science (M.S.) in Computer Science Sep 2015 – Dec 2016 (Expected)
Concentration in Human-Computer Interaction and Cyber-Physical Systems

Seoul National University (SNU) Seoul, South Korea
Bachelor of Science (B.S.) in Computer Science and Engineering Mar 2009 – Feb 2015

WORK EXPERIENCE

Graduate Researcher **UC San Diego** Sep 2015 – Present
As part of the Big Pixel initiative at UC San Diego, I developed a web service that extracts searched location data of areas of interest using Google Maps API, Google Fusion Tables REST API, JavaScript, and HTML on top of an Apache2 server on an Amazon EC2 instance

IT Consulting Intern **Rimahr Co. (formerly Booz & Co.)** Mar 2015 – Aug 2015
Provided technical support for a source code analysis solution called CxSAST by Checkmarx Inc., conducted functional testing, and produced documentations (class ATE and AGD) for Common Criteria for Information Technology Security Evaluation

EXPERIENCE

Project Team Manager **Ubiquitous Computing**, UC San Diego Sep 2015 – Present
Designed and developed the server system of a course project called SAPHIRE (Semantic semi-Autonomous Processing Household repertoIRE). The server was built on Node.js and deployed using Amazon Elastic Beanstalk. Incorporated MongoDB for database and Server.io and its Java client library for the server and the Google Glass app, respectively, for real-time communication.

Developed the simulator system for future smart home appliances as well as a node module (Node-RED) in Beaglebone Black connected to an iRobot.

Project Team **Robotics**, UC San Diego Sep 2015 – Present
Developed a radar system using a magnenometer, ultrasonic sensor, a step motor, and a 128×64(px) LCD panel using Mbed. Mounted it on top of an iRobot Create connected to Beaglebone Black and a camera module. Connected the iRobot to an eye tracking system such that user's eye movements can control the robot's movement via Create Open Interface.

Undergraduate Researcher **Intelligent Data Systems Lab.**, SNU Mar 2014 – Jun 2014
Developed a naïve Bayesian classifier of news articles in Python using TextRank algorithm, a Natural Language Toolkit and cosine similarity calculation

Undergraduate Researcher **Ubiquitous Systems Lab.**, SNU Sep 2013 – Dec 2013
Designed and implemented an algorithm for componentizing controller area network bus using a time synchronization algorithm (precision time protocol; IEEE 1588) and time-division multiplexing. Conducted simulation on a bus network formed with multiple Infineon TC1797 devices

SKILLS - Full Stack Software Engineer, Web/Wearable/Robotics Developer

Backend: Java, Node, Express, Python, C, C++, MongoDB, Apache, MySQL

Frontend: Javascript, HTML, CSS, JQuery, Bootstrap, Google Glass Development Kit, Eye Tribe SDK

SCM/Systems: Git, AWS EC2/Elastic Beanstalk/S3

APIs: Github, Google Maps, Google Fusion Tables, iRobot Create Open Interface, Adafruit-GFX

Korean: Native Proficiency

HONORS AND AWARDS

Korean National Scholarship for Science and Engineering 2009
Superior Academic Performance Seoul National University 2014 and 2011
Capstone Engineering Design Projects, 2nd place Seoul National University Jul 2012

EXTRACURRICULAR ACTIVITIES

Solidarity for LGBT Human Rights of Korea LGBT Human Rights Activist 2013 – 2015
Queer in SNU Campus Staff 2014 – 2015
SNU Buddy Cultural Exchange Club Cultural Diversity Team Manager 2011 – 2012
Seoul National University Student Venture Network Outreach Team Leader 2010 – 2011