Karen Chu

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Personal Website: https://chukt.github.io/

EDUCATION

University of California, Irvine:
BS in Computer Science and Engineering — March 2017

SKILLS

Programming Languages: Java (Advanced), Python (Advanced), C/C++, MySQL, HTML, CSS, JavaScript
Software Applications: Git, Visual Studio, Eclipse, IDLE, Android Studio
Hardware Applications: Arduino, Raspberry Pi, Intel Edison, ATMega32

PROJECTS

AthenaHacks: Digital Braille | *Python* — Apr 2017

- Designed an LED system that simulated a Braille display to visually test the program's ability to translate an image's text to Braille
- Wired LEDs to a base shield mounted on an Intel Edison and programmed the microcontroller to parse translated Braille text obtained from a file in the Intel Edison
- Won AthenaHacks' Best IoT Hack

Safe Community Awareness and Alerting Network | *HTML & JavaScript* — Dec 2016 - Mar 2017

- Extended a professor's existing IoT project, an emergency alert system, to include detection of poor air quality to alert the authorities of abnormal environmental conditions
- Integrated sensors into the existing code base on the Raspberry Pi and created an interactive website to automatically update the air quality in a specified area

UAV Forge: Avionics | *C* — Oct 2015 - Sep 2016

- Responsible for coding multiple sensors to integrate onto the unmanned aerial vehicle for different aspects such as navigation and power and used I2C to communicate between devices
- Developed an automated power monitoring system to track battery usage of UAV
- Configured a compass module to calculate the heading direction, tilt value, and roll value

NASA/JPL Global Warming Project | *Python* — Oct 2014 - Dec 2014

- Developed a program to simulate the progression of the Antarctic and Greenland ice sheets
- Designed a graphical user interface to allow users to recreate the effect of the increase of snow on ice sheets by adding interactive components

RELEVENT EXPERIENCE

Beall Center of Art and Technology | UC Irvine — Jul 2015 - Sep 2016
Docent, Expressive Robotics Intern — Jul 2014 - Aug 2014

- Responsible for opening and closing the art exhibition and providing guests with background information on specific exhibits
- Instructed students in the basics of circuitry, the Arduino and VEX Robotic parts
- Aided in the creation and completion of students' robots by debugging their C code

Information and Computer Science Department | UC Irvine — Sep 2014 - Dec 2014
ICS 31 Tutor

- Reviewed core Python concepts and answered students' questions
- Focused on adapting to each student by adjusting teaching styles