RICHARD K. KIM

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EDUCATION

University of Michigan, Ann Arbor, MI   **Anticipated Graduation: December 2018**
B.S.E. in Computer Science
Minor in Mathematics
Major GPA: 4.0   Cumulative GPA: 3.7

Coursework: Web Databases (EECS 485)*, Computer Organization (EECS 370)*, Linear Algebra (MATH 217)*, DS
& Algorithms (EECS 281), Discrete Math (EECS 203), Calculus III (MATH 215), Differential Eq. (MATH 216)

PROFESSIONAL EXPERIENCE

Photometric Stereo in Real Time   **September 2015 – May 2016**
Computer Vision Project Under Professor Balzano, EECS | github.com/rkkim/RealTimePhotometricStereo
- Implemented photometric stereo using four different computer screen lighting configurations to generate 3D models
- Programmed matrix computations required in MATLAB in order to generate the correct surface normal for 3D images
- Created program that utilizes live photos in MATLAB to generate moving averages of objects' surface normals
- Utilized OpenCV software to capture live images taken on webcam and make them transferable to MATLAB
- Built and designed optimal demonstration set-up of the computer vision project using CAD software

Policy Intern for Senator Susan Lee (District 16, Maryland)   **July 2014 – February 2015**
Annapolis, MD
- Assisted in developing campaign strategy to elect House Representative Susan Lee to the Maryland Senate
- Organized community outreach and persuasion efforts such as community parades and phone banking events
- Researched legislations affecting Korean-American communities and presented findings to Maryland General Assembly

PERSONAL PROJECTS

Cognizant (MHacks 8) | Swift
- Developed a mobile app that utilized Open Data provided by City of Detroit to warn users when in area of high crime
- Utilized heat map layering on top of Apple Maps to give visualization of crime density in the area of the user
- Integrated functionality to run in the background and give push notifications to the users using iBeacon
- Routed functionality in the back-end to filter the crime data depending on the time of the user

Personal Website (Richard-Kim.me) | HTML/CSS/jQuery/Bootstrap
- Built and designed an original design from scratch to display personal work, contact, and programming portfolio
- Developed many of the front end skills including HTML, CSS, jQuery along with the bootstrap framework

Graphing Calculator in iOS | Swift
- Familiarized myself with iOS development in Swift through Stanford's CS193P (iPhone Application Dev.) course
- Implemented multiple views (split view, stack view), segues, and working MVC model for the iOS application
- Utilized UIKit and BezierPath frameworks to create interactive elements such as buttons, animations, and drawings

Random Quote Generator | HTML/CSS/Javascript
- Developed the fundamental skills of web development by building a responsive front end using HTML and CSS
- Utilized Javascript for randomizing the background color whenever the "get quote" button is pressed
- Learned to work with JSON by parsing data and learned to make API calls to server in order to retrieve the quotes

HONORS

The Dean's List – awarded to students who receive 3.5+ GPA in College of Engineering   April, June 2016
University of Michigan Honors – awarded to high achieving U of M students with 14+ credits   April 2016
National AP Scholar – awarded to students who receive 4 or 5 scores on 8+ AP tests   June 2015, 2016

SKILLS

Programming: Experience in C++, MATLAB, and LaTeX; familiar with Swift, HTML, CSS, Javascript
Tools & Libraries: Xcode, Vim, Github, Bootstrap, jQuery, UI Frameworks in Swift