

# RICHARD K. KIM

rkkim@umich.edu • (301) – 841 – 5848

Richard-Kim.me • github.com/rkkim

## EDUCATION

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**University of Michigan, Ann Arbor, MI**

**Anticipated Graduation: April 2019**

B.S.E. in Computer Science

Minor in Mathematics

Major GPA: 4.0 Cumulative GPA: 3.62

**Coursework:** Data Structures & Algorithms (EECS 281)\*, Statistics (STATS 250)\*, Programming & Elementary Data Structures (EECS 280), Discrete Math (EECS 203), Calculus III (MATH 215), Differential Equations (MATH 216)

## PROFESSIONAL EXPERIENCE

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**Photometric Stereo in Real Time**

**September 2015 – May 2016**

*Computer Vision Project Under Professor Balzano, EECS* | [github.com/rkkim/RealTimePhotometricStereo](https://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

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**Personal Website (Richard-Kim.me)** | HTML/CSS/jQuery/Bootstrap

**[github.com/rkkim/rkkim.io](https://github.com/rkkim/rkkim.io)**

- Built and designed an original design from scratch to display my personal work, contact, and my portfolio
- Learned many of the front end skills including HTML, CSS, jQuery along with the bootstrap framework

**Graphing Calculator in iOS | Swift**

**[github.com/rkkim/GraphingCalculatoriOS](https://github.com/rkkim/GraphingCalculatoriOS)**

- 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

**[github.com/rkkim/RandomQuoteMachine](https://github.com/rkkim/RandomQuoteMachine)**

- 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

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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

Leadership Award from The Korean Association of the State of Maryland January 2015

## SKILLS

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*Programming:* Experience in C++, MATLAB, and LaTeX; familiar with Swift, HTML, CSS, Javascript

*Tools & Libraries:* Xcode, Vim, Github, Bootstrap, jQuery, many UI Frameworks in Swift