

# RICHARD K. KIM

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13 Cullinan Dr, Gaithersburg, MD (Permanent) • 600 E Madison St, Ann Arbor, MI (School)

## 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)

## PROJECTS AND WORK EXPERIENCE

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### Photometric Stereo in Real Time

**September 2015 – May 2016**

*Computer Vision Project Under Professor Balzano, University of Michigan EECS*

- 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

### Graphing Calculator in iOS

- 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

### Blimp Project

**September 2015 – November 2016**

*ENGR 100, University of Michigan*

- Designed propulsion mechanism for airship using CAD, resulting in 3rd place finish out of 17 teams in competition
- Soldered, assembled, and tested electrical system (motor, battery, servo, receiver) of airship to ensure reliability
- Led team's drafting of Flight Qualification Report, justifying designs and methodologies used to create the airship

### 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

### Lifeguard at Georgetown Aquatics

**Summer 2013, 2014, 2015**

*Gaithersburg, MD*

- Performed three rescues in emergency situations
- Maintained cleanliness of the pool and performed weather evacuations when on-duty

## 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, OpenCV, HTML, CSS, jQuery