

Eileen J. Choe

Curriculum Vitae

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Education

2014–Present **BS, Computer Science**, *Loyola Marymount University (LMU)*, Los Angeles, CA
Minor in Applied Mathematics
University Honors Program
Expected: May 2018
Cumulative GPA: 4.0/4.0

Research Experience

Loyola Marymount University

January 2017– **Undergraduate Researcher**, *GRNsight*
Present Research Advisors: John Dondi Dionisio, Ph.D., Professor of Computer Science
Kam Dahlquist, Ph.D., Professor of Biology
Currently developing a node coloring framework to visualize gene expression data for GRNsight, a web application and service for visualizing small- to medium-sized gene regulatory networks.

Professional Experience

June 2017 – **Software Engineering Intern**, BLUE ORIGIN, Kent, WA
August 2017 Developed interactive user interfaces using Angular for enterprise web applications used for rocket development and manufacturing. Used redux to implement client-side state management for part serial numbers. Deployed a self-hosted analytics platform to track and analyze user data across multiple enterprise applications.
September 2016 – **Academic Part Time Intern**, NASA JET PROPULSION LABORATORY, Pasadena, CA
January 2017 Developed a data analysis pipeline for Radiation Budget Instrument (RBI) thermopile detector chip aging characterization tests, reducing individual test analysis time by over 50%. Programmed an application which analyzes reliability trends between components used in CubeSATS and in "flagship" JPL missions.
June 2016 – **Parts Engineering Intern**, NASA JET PROPULSION LABORATORY, Pasadena, CA
August 2016 Analyzed data and provided technical recommendations for a performance and aging characterization study of the Radiation Budget Instrument (RBI) thermopile detector chip. Supported Parts Engineering group in optics research, parts list management and analysis, and Analysis and Test Lab cost forecasting.
May 2015 – **Electrical Engineering Intern**, RAYTHEON SPACE AND AIRBORNE SYSTEMS, El Segundo, CA
August 2015 Performed risk assessment of a rectifier diode through research and qualification testing to characterize suitability for use across Raytheon product line. Performed parts obsolescence reviews and drafted Raytheon Vendor Control Drawing and Change Notice documents.

Additional Experience

September 2014 – May 2015 **Alternative Breaks Coordinator**, *Loyola Marymount University Center for Service and Action*
Coordinated two alternative break (AB) social justice immersion trips (Haiti: Food Justice and Agriculture and Puerto Rico: Organic Farming and Sustainability). Co-directed annual Alternative Breaks Film Festival, where student documentaries were shown to raise awareness of social justice issues in the community.

Publications

- 2016 Ray Toal, Rachel Rivera, Alexander Schneider, and Eileen Choe. 2016. Programming Language Explorations. Chapman & Hall/CRC.

Presentations

- November 2017 **Southern California Conferences for Undergraduate Research (Pomona, CA)**
Research Advisors: John David Dionisio, Ph.D. and Kam Dahlquist, Ph.D.
Oral Presentation: "GRNsight v2: a web application for visualizing models of small gene regulatory networks"
- October 2017 **Society of Women Engineers Undergraduate Research Competition (Austin, TX)**
Research Advisors: John David Dionisio, Ph.D. and Kam Dahlquist, Ph.D.
Oral Presentation: "GRNsight v2: a web application for visualizing models of small gene regulatory networks"
- March 2017 **Loyola Marymount University Undergraduate Research Symposium (Los Angeles, CA)**
Research Advisors: John David Dionisio, Ph.D. and Kam Dahlquist, Ph.D.
Poster Presentation: "Improved data interoperability for GRNsight: a web application for visualizing models of gene regulatory networks"

Awards

- October 2017 Society of Women Engineers Undergraduate Research Competition Finalist Travel Award
- May 2017 LMU College of Science and Engineering Outstanding Junior Computer Scientist Award
- May 2016 LMU College of Science and Engineering Outstanding Sophomore Engineer Award
- May 2015 LMU College of Science and Engineering Outstanding Freshman Engineer Award
- May 2015 LMU Service and Leadership Award
- 2014 - 2018 LMU Presidential Academic Scholarship

Teaching Experience

Loyola Marymount University

- Spring 2017 **Teaching Assistant for CMSI 186 -Programming Laboratory (Java)**
Instructor: John David Dionisio, Ph.D
- Spring 2016 **Teaching Assistant for ENGR 160 - Algorithms and Applications (MATLAB)**
Instructor: Nazmul Ula, Ph.D

Professional Memberships and Societies

- 2016 - **Association for Computing Machinery**
Present Member
- 2014 - **Society of Women Engineers**
Present LMU Section President (2017 - 2018)
Region B Collegiate Communications Editor (2017 - 2018)
LMU Section Vice President (2016 - 2017)
Region B SWE Future Leader (2016 - 2017)
LMU Section Outreach Coordinator (2015 - 2016)
- 2017 - **Alpha Sigma Nu Jesuit Honors Society**
Present LMU Section Secretary (2017 - 2018)

Software Skills

Programming Languages	Java, JavaScript, Python, C, C++, CSS, HTML, MATLAB
Tools and Frameworks	Express, Node.js, Angular, D3.js, Git
Operating Systems	Windows, Linux, Macintosh

International Experience

Fall 2015	LMU Engineering Study Abroad Program in Bonn, Germany
Summer 2015	LMU Summer Study Abroad: Christianity and Art in Rome
January 2015	LMU Alternative Break Social Justice Immersion Program: Haiti