

# CARLYN-ANN LEE

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## TECHNICAL STRENGTHS

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C/C++, C#, Java, Python, Javascript, Matlab, Visual Basic, Excel, MEAN.io, OpenCV, OpenGL

## EXPERIENCE

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### **Jet Propulsion Laboratory, California Institute of Technology**

August 2012 - present

*Applications Software Engineer*

*Pasadena, CA*

- Full web stack development for deep space telecom and mission planning tools.
- REST APIs using nodejs, java, mongo and integration with mission planning tools. Developed GUIs to consume REST APIs with Liferay and Drupal. Visualization with d3.
- Improved bandwidth requirements for Deep Space Network simulations using stochastic optimization.

### **Spectral Imaging Laboratory**

November 2011 - present

*Consultant*

*Pasadena, CA*

- Improved resolution of raytracing-based simulations of compound eyes. Matlab prototype, hardware implementation using openCV.
- Mathematical modeling of visual acuity for multiple apertures on curved surface. Applied neural networks to improve angular resolution of a point light source.

### **California State University, Fullerton**

December 2009 - Aug 2012

*Research Assistant & Intern*

*Fullerton, CA*

- Improved cancer detection in DNA microarray data with feature extraction techniques using Matlab.
- Binding site discovery in heat-shock proteins with C/C++ implementation of self-organizing maps.
- Developed scheduling tool for library resources using .NET framework. C# student web application, VB.NET admin configuration tool.
- Database design and implementation using SQL Server and access control using stored procedures.

## VOLUNTEER & PROFESSIONAL AFFILIATIONS

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**June 2009 - present** Mentor & participant in robotics competitions to contribute and advance learning of C/C++ with Lego Mindstorm, VEX, R-pi, Arduino.

**2015** Interplanetary Small Satellite Conference Organizing Committee.

**2010-2012** Vice-President of Association for Computing Machinery, CSU Fullerton.

## AWARDS & HONORS

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**2013** 1st place Biotech Track, 15th Annual IEEE Biomedical Engineering Biotech Contest.

**2012** Anita Borg scholarship recipient, CSU Program for Education & Research in Biotechnology Student Travel Grant, Orange County Engineering Council Outstanding Engineering Student Award.

## EDUCATION

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### **California State University, Fullerton**

M.S. in Computer Science

*August 2012*

B.S. in Computer Science, Minor in Mathematics

*July 2011*