

# CARLYN 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

*Applications Software Engineer*

August 2012 - present

*Pasadena, CA*

- Full web stack development for deep space telecom and mission planning tools.
- Developed GUIs to consume REST APIs with Liferay and Drupal. Visualization with d3.
- Python implementation of Markov model to estimate bandwidth requirements in Deep Space Network simulations. Improved bandwidth costs from prior method.

### Spectral Imaging Laboratory

*Consultant*

November 2011 - present

*Pasadena, CA*

- Applied super-resolution algorithms to raytraced simulations of images captured with artificial compound eyes. Using Matlab and openCV, improved resolution of images degraded with noise models.
- Mathematical modeling of visual acuity for multiple apertures on curved surface. Implemented neural networks to improve angular resolution of a point light source.

### California State University, Fullerton

*Research Assistant & Intern*

December 2009 - Aug 2012

*Fullerton, CA*

- Created framework to improve run-time efficiency and accuracy of cancer detection using eigen decomposition of DNA microarray data with large feature set.
- 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 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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**2015** 3rd place Topcoder Open Finals API Hackathon.

**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*