

CARLYN LEE

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EXPERIENCE

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 telecom scheduling GUIs with Liferay and Drupal. Visualization with D3 and WebGL.
- Python implementation of Markov model to estimate bandwidth requirements in Deep Space Network simulations. Improved bandwidth costs from prior method.
- Java and nodejs implementations of telecom link analysis API based on models described in 810-005 DSN Telecommunications Link Design Handbook.

Spectral Imaging Laboratory

Consultant

November 2011 - present

Pasadena, CA

- Applied super resolution algorithms to ray-traced 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

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

2015 - present Interplanetary Small Satellite Conference Organizing Committee.

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

AWARDS & HONORS

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

California State University, Fullerton

M.S. in Computer Science

August 2012

B.S. in Computer Science, Minor in Mathematics

July 2011