

# Melanie Kwon, MSCS

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## LANGUAGES

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ADVANCED: Python, Javascript (ES6), Java  
INTERMED.: SQL, VBA, CSS  
BASIC: C++, R, Haskell

## SKILLS

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### SOFTWARE DEVELOPMENT

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Version Control/Git, Familiarity with Linux/Unix,  
TDD, Agile project management, Business Analysis

### DATABASE EXPERIENCE

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SQL Server, MySQL, PostgreSQL, SQLite, MS Access

### DATA SCIENCE / MACHINE LEARNING

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Excel, Numpy, Pandas, Beautiful Soup, TensorFlow,  
Scikit-Learn (*Clustering, Classification, Regression, SVM,*  
*Decision Trees, Ensemble Learning/Random Forests,*  
*Dimensionality Reduction, ANNs*)

### WEB DEVELOPMENT

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Node.js, Angular.js, JQuery, AJAX, Maven, Spring,  
Hibernate, Bootstrap, Material Design, Sass, Adobe  
Photoshop/Illustrator

### COMMUNITY INVOLVEMENT

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Volunteer – SoCal Data Science Conference 2017  
Member – Association for Computing Machinery  
Member – Data Science Research Group (CSULA)

## EDUCATION

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M.S., Computer Science, CSULA, pending 2018

B.A., Political Science, UCLA, 2010

Deep Learning Specialization from deeplearning.ai on  
Coursera. Certificates completed Aug-Sept, 2017

- Neural Networks and Deep Learning
- Improving Deep Neural Networks:  
Hyperparameter tuning, Regularization & Optimization
- Structuring Machine Learning Projects

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## EXPERIENCE

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KAISER PERMANENTE – DEPARTMENT OF RESEARCH AND EVALUATION

Los Angeles, CA

### Operations Analyst / Programmer

2015 - 2017

- Provide project and logistical support for research staff/administrators/scientists, and established a new departmental Project Management Office to champion and lead Lean Six Sigma process improvement initiatives.
- Coded decision support applications and automated reports in VBA/Excel/Access/SQLServer (Space Management Planning Tool, Grant Projection Tool). Experience writing efficient stored procedures and views in MS SQL Server.
- Sharepoint 2013 site administration/creation, content management, and custom UI/front-end development work.

MERCURY INSURANCE GROUP

Brea, CA

### Business Systems Analyst

2015

- Liaison between business and project team. Capture business requirements and translate them to complete functional requirements for developers. Review requirements with QA and send UAT Approval requests.
- Facilitate online meetings to assess project scope, gather estimates, determine dependencies to coordinate integration, check project status to meet multiple upcoming deadlines, and overcome project blockers.

WOMEN IN COMPUTING

Long Beach, CA

### Front-End Web Developer

2013 – 2014

- Front-end development in HTML5, CSS3, JQuery, and WordPress CMS. Site administration and maintenance.

CHILDRENS HOSPITAL LOS ANGELES

Los Angeles, CA

### Project Coordinator

2011 – 2012

- Plan and coordinate logistics for hospital-wide organizational effectiveness workshop for over 4000 CHLA employees, USC faculty, and PMG staff. Project and analytical support for Organizational Effectiveness department.

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## FEATURED PROJECTS

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### Applied Deep Learning for Diagnosing Cervical Cytology (Thesis project advised by M. Pourhomayoun, Ph.D.)

Research project manager for collaborative study with pathologists of LAC+USC/Keck Hospital to assess the diagnostic accuracy of convolutional neural networks trained on whole slide scanned cytology images.

### Rover Swarm Simulation (Java, Node.js)

[Team of 4] Robot swarm A.I. competition. Implemented A\* pathfinding algorithm and RESTful API server to communicate with other Rover teams.