

# Winson Luk

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## EDUCATION

Expected 2020 **University of California, San Diego** San Diego, CA  
*Bachelor of Science in Computer Engineering*  
GPA: 4.0

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## EXPERIENCE

2017 – Present **San Diego Supercomputer Center** San Diego, CA  
*Software Development Intern*

- Currently coordinating with the San Diego Supercomputer Center's Spatial Information Systems Lab to improve search capabilities for CINERGI, a NSF-funded comprehensive inventory of global geoscience datasets.
- Developing a relevant search feature for the CINERGI search engine by applying Stanford NLP to 500,000 discordant dataset XML metadata within a MongoDB staging database.
- Utilizing improved XML metadata to enhance semantic ontologies established within a Neo4J graph database while maintaining traceable W3C PROV provenance statements.

2015 – 2016 **Gigamind Explorer** San Mateo, CA  
*Junior Content Designer*

- Architected a full-length mathematics workbook from concept to completion with Adobe InDesign and Illustrator, maintaining strong relationships with educators to establish layouts relevant to student needs.

2013 – 2016 **Carlmont Technology Club** Belmont, CA  
*Founder and President*

- Founded a technology organization that competes annually in the San Jose Tech Challenge, coordinating the engineering operations of more than 30 students in 10 teams, winning a total of 4 regional awards.

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## AWARDS

Oct 2016 **SD Hacks 2016** [Reddit Observation Bot on Twitch](#)  
*1st Place, Twitch Moderation Challenge (Winner, Hack Harassment Challenge)*  

Aug 2014 **Congressional STEM Competition** [College Loan Estimator](#)  
*1st Place, California's 14th Congressional District*

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## PROJECTS (Available at [github.com/winsonluk](https://github.com/winsonluk))

Jan 2017 **[Alizon](#)** JavaScript, jQuery, AJAX, Python, PIL  
*Chrome Extension that suggests AliExpress substitutes for Amazon products*

- Built the Python backend that implements the Amazon API to extract product images from ASINs, then uses PIL to conduct an exhaustive AliExpress backwards comparison.
- Collaborated with JavaScript developers in a team atmosphere to integrate the Python software into a Flask module, providing a stable server for requests from jQuery with AJAX.

Sep 2016 **[Reffit](#)** Python, NumPy, Pandas, BeautifulSoup, SQLite, Travis CI  
*Automated natural language product marketer that intelligently targets social media users*

- Implemented live data mining of over 10,000 Reddit comments/hour, utilizing NumPy, Pandas, SQLite, and web data extraction of Amazon.com to generate instant intelligent natural language recommendations.
- Introduced a comprehensive test suite by incorporating Python unittest testing frameworks and Travis Continuous Integration while simultaneously extending software and testing compatibility from Python 2 to 3.