

# SHAWN T. SCHWARTZ

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## SUMMARY

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A well-rounded undergraduate student and public speaker with 9+ years of programming, design, and full-stack development experience, in over 10 programming languages. My research interests include memory differences and deficits in younger adults as well as in the development of innovative teaching technologies to enhance the 21st century classroom education experience.

## EDUCATION

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**University of California, Los Angeles (UCLA)**, Los Angeles, CA      Sept. 2015 – Exp. June 2019  
*Bachelor of Science (B.S.), Biology, Expected June 2019*  
*Bachelor of Science (B.S.), Cognitive Science, Specialization in Computing, Expected June 2019*  
Highest Departmental Honors and Thesis, *Candidate*  
Primary Advisor: Dr. Alan D. Castel

## PUBLICATIONS

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- [1] Dang, J., Lin, B., Yuan, J., **Schwartz, S. T.**, Shah, R. M., & Garg, N. K. (2018). Smart access to 3D structures. *Nature Reviews Chemistry* 2, 95 – 96. [View PDF](#)

## RESEARCH EXPERIENCE

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**Memory and Lifespan Cognition Lab**, UCLA, Los Angeles, CA      March 2018 – Present  
*Undergraduate Thesis Student & Research Assistant*  
Principal Investigator: Dr. Alan D. Castel

- My current research with Alexander L.M. Siegel, M.A., under Alan Castel, Ph.D., focusses on establishing differences in the relationships between an item's value and its spatial location to investigate participants' strategies in visuospatial memory recall with risk-reward motivation.
- Other projects include the investigation of priming and interference in everyday memory and attention.
- Cognitive Research Interests: Metacognition, Aging, Metamemory, Risk-Reward, Visuospatial Memory

**NASA Jet Propulsion Laboratory (JPL)**, Pasadena, CA      October 2013 – March 2014  
*High School Computational Chemistry Researcher*

- Developer of Software: "*Computational Simulation of Multidimensional H<sub>2</sub>O Molecule Interactions*" (*Java + MATLAB*) under the mentorship of Dr. William N. Warner.
- First rendition of software won 1st place at L.A. County Science Fair, March 2013.
- Competed for invitation to Intel International Science and Engineering Fair at the California State Science Fair, April 2013.

## TECHNICAL & LABORATORY SKILLS

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- **Programming**  
*Fluent in* Java, C++, MATLAB, PHP, HTML5, CSS3, JavaScript  
*Proficient in* R, Swift, MySQL, Ruby, JSON, jQuery, Python, AngularJS, Node.js  
*Other Libraries & Tools:* jsPsych, Collector, Psychtoolbox, Jekyll, Jmol, JSmol, p5.js  
*Currently learning* Machine Learning: Apple Core ML, TensorFlow, Keras

- **Applications**  
Bash, Git, L<sup>A</sup>T<sub>E</sub>X, SPSS Statistics, Microsoft Excel, Sublime Text, R-Studio, Xcode, Jupyter Notebook  
Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Adobe Lightroom, Adobe XD CC
- **Operating Systems**  
MacOS, Windows, Linux, iOS, Android
- **Statistical**  
Analysis of variance, correlation, chi-square, regression, hierarchical linear modeling (HLM)
- **Laboratory**  
Titrations, Micropipetting, Gel Electrophoresis  
Mass Spectrometry, IR, H,C-NMR Analysis

## TECHNICAL EXPERIENCE

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### Associated Students UCLA (ASUCLA)

Los Angeles, CA

*Lead Student Full-Stack Web Developer / Technical Assistant*

January 2016 – Present

- Redesigned entire ASUCLA institutional website & implemented backend for Board Members to access and edit site content. Site reaches over 500,000+ unique views annually. <http://asucla.ucla.edu>
- Assisted in designing layout & developed backend JavaScript solutions for responsive headers for the new UCLA Store website. <http://uclastore.com>
- Developed a JavaScript kiosk program to run historical timeline of UCLA in UCLA Ackerman Union Level 1.
- Designed & programmed interactive JSON ASUCLA Store Reward Points checker & PHP-based menus for campus restaurants.
- Design, code, and send out weekly mass email promotions for 12 UCLA campus stores (*1,000,000+ emails delivered per year*).

### UCLA Health, Faculty Practice Group (FPG)

Los Angeles, CA

*Population Health Care Coordinator Intern*

June 2017 – September 2018

- Invented, developed & maintained novel web-software for UCLA Health Hospice & Palliative Care Departments: *myEMRA*<sup>®</sup>: “*my Electronic Matching Resource Assistant*”. <https://myemra.com>  
*\*Adoption & Pilot by UCLA Health System & ISS for proxied network integration currently in progress\**
- Outreached to patients via telephone encounters to obtain missing medical procedure records.
- Maintained innovative Excel Database from UCLA patients’ charts (“CareConnect”) & 9 local hospice agencies to track & drew new statistical conclusions regarding UCLA hospice referrals to external agencies.
- **Total Volunteered Hours: 451 hours.**

### QR Chemistry

Los Angeles, CA

*Software Development Consultant & Application Designer*

January 2018 – July 2018

- Part of the development & execution team of an Apache Cordova wrapped application that provides smart access to 3D molecular structures for enhancing organic chemistry education in the classroom. <https://qrchem.net>
- Developed with the guidance & support of Dr. Neil K. Garg & Dr. Daniel Caspi.  
Published in *Nature Reviews Chemistry*, [1] & Supporting Article in *The Daily Bruin*.

### Kidz Dental Care

Porter Ranch, CA

*Designer & Web Developer*

July 2017 – June 2018

- Designed, built, and currently maintains (per diem) pediatric dental responsive websites. <https://kidzdentalcare.com> & <https://kidzdentalcare661.com>
- Created HIPAA compliant secure patient information (PHP) form that generates secured PDF information form to streamline patient-doctor experience and reduce wait-times.

## LanguageBird®, LLC

Lead Full-Stack Developer & Programmer

Los Angeles, CA

July 2016 – March 2018

- Developed and managed dynamic user experience for WASC accredited online school providing University of California and NCAA approved online 1:1 foreign language courses and credit to over 1000 high school students, worldwide. <https://languagebird.com>

## VOLUNTEER EXPERIENCE

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### UCLA Health

Care Extender Internship, Department Coordinator Assistant (DCA)

Santa Monica, CA

February 2017 – Present

- Shadow out-patient surgeons and radiology technicians for in-patient and emergency department cases, and check-in patients for early-morning surgeries in admissions.
- *Department Coordinator Assistant*: Audit fellow Care Extender Volunteers throughout their assigned departments to maintain the quality and integrity of the Care Extender Internship Program.
- **Total Volunteered Hours: 710 hours.**

### UCLA Center for Accessible Education (CAE)

Volunteer Notetaker

Los Angeles, CA

January 2017 – Present

Provided quality, detailed notes for students with registered disabilities, for the following courses:

- Psychology 20: Introduction to MATLAB Programming (Winter 2017)
- Psychology 100B: Research Methods in Psychology (Fall 2017)
- Psychology 124C: Human Memory (Winter 2018)
- Ecology and Evolutionary Biology 186: Evolutionary Medicine (Summer 2018)

## LEADERSHIP EXPERIENCE

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### Back Off Bully Organization

Co-Founder & Web Developer

Chatsworth, CA

March 2014 – Present

*Back Off Bully is an organization that is working to end the bullying epidemic and give self-confidence to those affected by it.*

- Built an international network, in over four countries, of thousands of children and adults through website outreach and social media campaigns.
- Established connection and relationship, through outreach, with our organization's Main Sponsor: **Nancy Cartwright** (Voice of Bart Simpson from *The Simpsons*). <https://backoffbully.org>