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EDUCATION

University of California, Los Angeles (UCLA), Los Angeles, CA   Sept. 2015 – Exp. June 2019

Bachelor of Science (B.S.), Cognitive Science, *Specialization in Computing*
  Highest Departmental Honors and Thesis, *Candidate*
  Thesis: *Risks and rewards: Memory for positive and negative item-location associations.*
  Primary Advisor: Dr. Alan D. Castel

Bachelor of Science (B.S.), Biology, *Specialization in Computing*
  Departmental Honors and Thesis, *Candidate*
  Thesis: *Machine learning applications for classifying biodiversity of color-patterns in coral reef fishes.*
  Primary Advisor: Dr. Michael E. Alfaro

Selected Relevant Coursework: Computational Theory & Simulation (A+), Functional Neuroimaging (A+), Evolutionary Medicine (A-), Evolutionary Medicine: Clinical Perspectives on Psychiatric Disorders (A), Cognitive Development (A-), Perceptual Development (A+), Behavioral Neuroscience (B), Biology and Social Justice (A+), Cognitive Psychology (A) & Laboratory (A+), Human Memory (A), Introductory (A+) & Advanced Topics in MATLAB Programming (A), 1 Year of Calculus & Linear Algebra (Avg. A-), 1 Year of Calculus Based Physics (Avg. B+), 1 Year of Ecological, Evolutionary, Molecular Biology & Genetics (Avg. B), 2 Years of Calculus Based General & Organic Chemistry (Avg. B+)

PUBLICATIONS

[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. https://doi.org/10.1038/s41570-018-0021-y
[View PDF]

MANUSCRIPTS IN PREPARATION

[1] Alfaro, M. E., Karan, E. A., **Schwartz, S. T.**, & Schultz, A. J. (in prep). *Quantitative approaches for studying color pattern evolution in coral reef fishes.* Manuscript in preparation.

[2] **Schwartz, S. T.**, Siegel, A. L. M., & Castel, A. D. (in prep). *Risks and rewards: Memory for positive and negative item-location associations.* Manuscript in preparation.

INVITED TALKS

UCLA, Memory and Lifespan Cognition Laboratory, May 23, 2019 (Upcoming)
Claremont McKenna College, Keck Science Department: Biology, May 2, 2019 (Upcoming)
UCLA, Memory and Lifespan Cognition Laboratory, February 14, 2019
UCLA, Alfaro Laboratory, February 13, 2019
UCLA, Department of Psychology Honors Seminar, January 30, 2019
UCLA, Memory and Lifespan Cognition Laboratory, October 18, 2018

CURRENT RESEARCH EXPERIENCE

Foster Lab, UCLA, Los Angeles, CA   January 2019 – Present
Department of Sociology
Visiting/Collaborating Computational Research Assistant
Principal Investigator: Dr. Jacob G. Foster
  - Developing computational models to study the birth, life, and death of television series.
  - Collaborating with members from the Alfaro Lab to study the evolution of ideas.

Alfaro Lab, UCLA, Los Angeles, CA   September 2018 – Present
Department of Ecology & Evolutionary Biology
Undergraduate Honors Thesis Student & Research Assistant
Principal Investigator: Dr. Michael E. Alfaro
  - My current research with Liz A. Karan, under Michael E. Alfaro, Ph.D., focusses on designing novel machine learning image processing algorithms to classifying the biodiversity of color-patterns in coral reef fishes.
  - Evolutionary Biology Research Interests: Computational and Comparative Phylogenetic Analyses, Biological Statistical Modeling, Species Biodiversity Classification, Micro- & Macro-Evolutionary Events

Memory and Lifespan Cognition Lab, UCLA, Los Angeles, CA   February 2018 – Present
Department of Psychology
Undergraduate Highest Honors Thesis Student & Research Assistant
Principal Investigator: Dr. Alan D. Castel
  - My current research with Alexander L. M. Siegel, M.A., under Alan D. 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: Computational Modeling, Metacognition, Metamemory, Risk-Reward Motivation, Visuospatial Memory

PRIOR RESEARCH EXPERIENCE

NASA Jet Propulsion Laboratory (JPL), Pasadena, CA   October 2013 – March 2014
High School Computational Chemistry Researcher
  - Developer of Software: *"Computational Simulation of Multidimensional H_2O 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

  - **Programming (10 Years of Experience)**
    Fluent in C++, Python, MATLAB, R, Java, PHP, HTML5, CSS3, JavaScript
    Proficient in Swift, MySQL, Ruby, JSON, jQuery, AngularJS, Node.js
    Machine Learning Frameworks/Deep Learning Models: TensorFlow, Keras, AlexNet & VGG16 DCNNs
    Statistical Packages: tidy, colordistance, dplyr, pavo, magick
    Other Libraries & Tools: jsPsych, Collector, Psychtoolbox, Jekyll, Jmol, JSmol, p5.js

  - **Applications & Operating Systems**
    Bash, Git, LaTeX, SPSS Statistics, Microsoft Excel, Sublime Text, R-Studio, Xcode, Jupyter Notebook
    Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Adobe Lightroom, Adobe XD CC
    MacOS, Windows, Linux, iOS, Android

- **Statistical**
  Analysis of variance, correlation, chi-square, regression, hierarchical linear modeling (HLM), Principal Component Analysis (PCA), Independent Component Analysis (ICA), Bayesian inference, Multidimensional scaling, partitional k-means & hierarchical agglomerative clustering, dendrogram analysis
- **Laboratory**
  Titrations, Micropipetting, Gel Electrophoresis, Mass Spectrometry, IR, H,C–NMR Analysis
  Functional Neuroimaging (fMRI) & FMRIB Software Library (FSL)

TECHNICAL EXPERIENCE

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 on the new UCLA Store e-commerce website. http://uclastore.com
- Developed a JavaScript kiosk program to run historical timeline of UCLA in 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 *(10,000,000+ 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®: "my Electronic Matching Resource Assistant"*.
- Outreached to patients via telephone encounters to obtain missing medical procedure records.
- Maintained innovative Excel Database from UCLA patients' Electronic Medical Records ("CareConnect") and 9 local hospice agencies for tracking and drawing 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 dentistry's responsive websites. https://kidzdentalcare.com & https://kidzdentalcare661.com
- Created HIPAA-compliant secure patient information pipeline (PHP) that generates & transmits secured PDF information forms to streamline patient-doctor experience and reduce wait-times.

LanguageBird®, LLC   Los Angeles, CA
Lead Full-Stack Developer & Programmer   July 2016 – March 2018
- Developed and managed dynamic user experience for WASC accredited online school providing WASC, 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

UCLA Health   Santa Monica, CA
Care Extender Internship, Department Coordinator Assistant (DCA)   February 2017 – February 2019
- Shadowed out-patient surgeons and radiology technicians for in-patient and emergency department cases, and checked in patients for early-morning surgeries in admissions.
- *Department Coordinator Assistant:* Audited fellow Care Extender Volunteers throughout their assigned departments to maintain the quality and integrity of the Care Extender Internship Program.
- **Total Volunteered Hours: 814 hours.**

UCLA Center for Accessible Education (CAE)   Los Angeles, CA
Volunteer Notetaker   January 2017 – Present
Provided quality, detailed notes for students with registered disabilities, for the following courses:
- Psychology 20A: 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)

Providence Tarzana Medical Center   Tarzana, CA
Engineering Facilities Intern   September 2014 – January 2015
- Assisted clinical staff with errands, clerical duties, and medical technology-related problems; helped patients with ambulatory tasks; discharged patients.
- **Total Volunteered Hours: 50 hours.**

LEADERSHIP EXPERIENCE

Back Off Bully Organization   Chatsworth, CA
Co-Founder & Web Developer   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

AWARDS & PROFESSIONAL MEMBERSHIPS

Awards:
- Highest Departmental Thesis Honors in Psychology, *UCLA*, Expected June 2019
- Departmental Thesis Honors in Ecology and Evolutionary Biology, *UCLA*, Expected June 2019
- Distinguished Care Extender of the Rotation, *UCLA Health, Santa Monica Hospital Surgery Center*, October 2018
- Distinguished Community Service Award & Rank 1/81 Valedictorian, *High Tech Los Angeles High School*, June 2015
- Certificate of Congressional Recognition for outstanding community contribution to end the bullying epidemic and provide self-confidence for those affected by it, *City of L.A. & 12th Council District*, July 2014

Professional Memberships:
- American Psychological Association (APA), *Undergraduate Student Affiliate*,
  Member: American Psychological Association of Graduate Students (APAGS)
- Association for Psychological Science (APS), *Undergraduate Student Affiliate*