

Scott L. Fleming

scottfleming.github.io

EDUCATION	Stanford University , Stanford CA B.S. Mathematical and Computational Science with Departmental Honors (Highest) and University Distinction (Highest), 2017.
	Stanford University , Stanford CA Ph.D. Biomedical Informatics (Expected 2022).
EXPERIENCE	Teaching Assistant , Stanford University January 2019 - March 2019 Assisting in curriculum development, course administration, and teaching for “CS 270: Modeling Biomedical Systems: Ontology, Terminology, Problem Solving”.
	Research Assistant , Stanford Medicine Fall 2018 - Present Using reinforcement learning to develop personalized activity coaching notification schedules for a cardiovascular mobile health app.
	Research Assistant , Stanford Medicine Summer 2018 Designed a rater-adaptive machine learning method for crowdsourced annotations that enables rapid and accurate diagnosis of autism spectrum disorder online.
	Research Assistant , Stanford Medicine Spring 2017 - Present Developed machine learning pipelines in Python and R to analyze functional magnetic resonance imaging (fMRI) data and discover patterns of brain activity that contribute to anxiety and depression.
	Research Assistant , Stanford Medicine Winter 2015 - Spring 2017 Studied macrophages in the Central Nervous System of <i>Danio rerio</i> . Wrote and secured \$7400 grant for primary research on novel protein NLRC3-like and associated pathways in microglia activation.
	Teaching Assistant , Stanford Biomedical Informatics Winter 2017 Assisted in the coordination of “BIOMEDIN 208: Clinical Informatics Literature Review Seminar”. Presented on clinical decision support systems to a group of clinicians and professional informaticists.
	Teaching Assistant , Stanford Human Biology Winter 2016 Led discussion sections, graded papers, and supervised Human Biology 122S: Social Class, Race, Ethnicity, and Health. Trained students to analyze primary literature.
	Teaching Assistant , BYU Chemistry Fall 2015 Supervised organic chemistry lab class. Held regular office hours and led review sessions. Awarded the Garth L. Lee Undergraduate Teaching Award for excellent instructional work.

**PAPERS /
POSTERS /
PRESENTATIONS**

Goldstein-Piekarski A*, Ball T*, Samara Z*, **Fleming SL**, Grisanzio K, Staveland B, Keller A, Williams L (2018, December). *Deriving biotypes for depression and anxiety using clinic-ready brain circuit metrics*. Submitted to Nature Medicine.

Berlow YA, Grizansio KA, **Fleming SL**, Rashed Ahmed AP, Aiken E, Carpenter LL, Philip NS (2018, December). *Symptom Profile Subtypes Predict Treatment Response to 5 Hz rTMS in MDD and Co-Morbid PTSD*. Poster at American College of Neuropsychopharmacology 57th Annual Meeting.

Fleming SL, Tariq Q, Du M, Dunlap K, Schwartz J, Khan N, Darmstadt G, Wall D (2018, November). *An Ensemble Learning Method for Early Detection of Autism and Other Developmental Delays using Crowdsourced Video Annotations*. **Spotlight Oral (top 20% of submissions)** at the Maternal and Child Health Research Institute Symposium, Stanford, CA. Poster, **3rd place for most exciting application**, at the Biomedical Informatics Retreat, Asilomar, CA.

Fleming SL, Fischer AS, Holt-Gosselin B, Williams LM (2018, November). *Interpretable Machine Learning Models for Precision Psychiatry*. Oral presentation and poster at the Stanford Data Science Initiative Fall Retreat, Stanford, CA.

Fleming SL, Leikauf JE, Sacchet MD, Poldrack RA (2018, May). *A Data-Driven Characterization of Neuropsychiatric Disorders using Measures of Attention, Working Memory, and Response Inhibition*. Poster at the Big Data in Precision Health Conference, Stanford, CA.

Fleming SL, Sousa AM, Talbot WS (2016, August). *Mechanistic Investigation of Inflammation Regulation by Novel Protein NLRC3-like*. Poster presented at the Interdisciplinary Initiatives Seed Grants Program Symposium, Stanford CA.

**SELECTED
HONORS**

Stanford Graduate Fellowship, Stanford University, Stanford CA (2018)
Awarded to top 100 incoming Stanford doctoral students in science and engineering.

University Distinction, Stanford University, Stanford CA (2017)
Awarded to top 15% of graduating class based on cumulative grade point averages.

Phi Beta Kappa, Stanford University, Stanford CA (2017)
For excellence and breadth of undergraduate scholarly accomplishments. Awarded to top 10% of the graduating class, with additional breadth of study requirements.

Departmental Honors, Stanford University, Stanford CA (2017)
For intensive research and coursework beyond the major requirements.

Bio-X Undergraduate Summer Research Program, Stanford CA (2016)
Competitive research grant awarded to top research proposals. Included three months of intensive study and research with select Stanford University faculty.

Deans List, College of Life Sciences, BYU, Provo UT (2015)
Awarded to top 5% of the college.

Golden Key International Honour Society, BYU, Provo UT (2015)
Awarded to top 15% of university sophomores, juniors, and seniors.

Garth L. Lee Undergraduate Teaching Award, BYU, Provo UT (2015)
Awarded for excellent instructional work as an undergraduate teaching assistant.

**VOLUNTEER
EXPERIENCES**

Church of Jesus Christ of Latter-Day Saints, Recife, Brazil **2012 - 2014**

Full-time missionary and volunteer representative of church. Taught lessons in Portuguese designed to strengthen families and communities. Led the coordination and planning of quarterly training events for over 200 missionaries, including transport logistics and accommodations planning. Collected and analyzed organizational data; reported statistics to leadership. Prepared and gave regular trainings to hundreds of other missionaries. Organized and taught free English language classes and carried out community service projects.

Park City Volunteer Ski Patrol, Park City, UT **2012**

Volunteer Ski Patroller. Responded to mountain emergencies. Provided emergency response intervention and facilitated patient transport. Volunteered 144 hours total.

Santa Clara Valley Medical Center, Santa Clara, CA **2010**

Emergency Room Volunteer. Assisted doctors and nurses in the Emergency Department. Volunteered 45 hours total

The Guatemalan Language Project, Boca Costa, Guatemala **2009**

Community Advocate. Coordinated, performed, recorded, and analyzed interviews with local leaders about the development of their communities and associated socioeconomic challenges (interviews were performed in Spanish).

Shriners Hospital for Children, Salt Lake City, UT **2007-2008**

Volunteer in Recreational Therapy. Organized and led activities for children with physical handicaps.