David G. Khachatrian

github.com/dkhachatrian
david.g.khachatrian@ucla.edu
(818) 807 -7027

EDUCATION

University of California – Los Angeles **Expected: June 2017**

Bioengineering B.S., with Technical Breadth in Computer Science

- Cumulative GPA – 3.930

EXPERIENCE

Research Assistant, Division of Mathematical Oncology **June 2016 – Aug. 2016**

City of Hope, Duarte, CA

- Modeled movement of neural stem cells in cerebral tissue based on structure tensor analysis to predict cell fate.
- Automated pruning, clustering, and quantitative plotting of regions of interest within histological slices.
- Mentored summer students on mathematical methods, analytical techniques, programming principles.

Lab/Project Assistant, Scholarly Innovations Lab (SIL) **Nov. 2014 – Oct. 2016**

University of California - Los Angeles, Los Angeles, CA

- Used Python and Natural Language Processing packages to automate metadata extraction from archaeological publications.
- Aided in creation of online portal for researchers to manually annotate artifacts from excavations.
- Oversaw and ensured proper handling of lab equipment by other SIL users.

Research Assistant, W.M. Keck Center for Neurophysics **May 2015 – Dec. 2015**

University of California - Los Angeles, Los Angeles, CA

- Created custom video-capture and data logging program interfacing with camera using LabVIEW, for use in experimental sessions.
- Provided feedback to lab members on clarity of papers to be submitted to scientific publications.

PRESENTATIONS

Madison Craig, Anthony Ho, Johnny Huang, **David G. Khachatrian**, Kevin Moore, Ergang Wang. "FLIGHT: A Wearable Sensing Device for Real-Time Physiological Data." UCLA Bioengineering Symposium; Los Angeles, CA; 16 March 2017.

David G. Khachatrian, Matt Christensen, Zhongqi Li, Alex Annala, Margarita Gutova, Tim Synold, Karen S. Aboody. "Characterization of Genetically Modified Neural Stem Cells *In Vitro.*" City of Hope Annual Poster Session; Duarte, CA; 30 July 2014.

AWARDS

Internet Research Incubator at UCLA (2016-2017)

One of twelve UCLA undergraduates given funding ($15000) to pursue self-directed research pertaining to the Internet.

- Investigating effectiveness of machine learning models in predicting peptide characteristics from primary sequence, with potential applications in drug discovery, biomaterials development, and information encoding.
- Studied correlation between internet use and depression, to gain insights that may aid in preventing the onset of clinical depression.

City of Hope Eugene and Ruth Roberts Summer Student Academy (2014)

Cohort of 70 students chosen from 1250 applicants to perform biomedical research with leading cancer researchers.

- Performed *in vitro* characterization assays for new human neural stem cell (NSC) line transduced with isoform of *myc* gene.
- Analyzed biodistribution of Fe^{2+}-labeled NSCs in NSG mouse *in vivo* model.

SERVICE

Co-Founder/Adviser, Armenian Engineers and Scientists Association at UCLA **June 2016 – Present**

- Connect alumni in STEM disciplines to club's executive board to plan events averaging 20+ attendees.
- Mentor and inform club members about opportunities in STEM disciplines, personal experiences in STEM.

Academic Outreach Officer/Adviser, Tau Beta Pi – California Epsilon Chapter **May 2015 – Present**

- Organize team of volunteers to lead review sessions for core undergraduate engineering courses, averaging 90 attendees per session.
- Mentor new officers and peer learning facilitators in required duties and effective teaching practices.

Active Member, InterAxon at UCLA **Sep. 2015 – June 2016**

- Developed and delivered presentations on neuroscience topics to underserved students in the Los Angeles area.