

Adam Klie

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RESEARCH INTERESTS

Design and application of interpretable and flexible machine learning models of genetic regulation in complex phenotypes.

EDUCATION

University of California, San Diego Ph.D. in Bioinformatics and Systems Biology, GPA: 4.00/4.00, Advisor: Dr. Hannah Carter	La Jolla, CA 2019–Current
University of California, San Diego B.S. in Bioengineering: Bioinformatics, GPA: 4.00/4.00	La Jolla, CA 2013–2017

RESEARCH EXPERIENCE

University of California, San Diego Graduate Researcher	La Jolla, CA July 2020–Current
University of California, San Diego Rotation Student	La Jolla, CA September 2019–June 2020
<ul style="list-style-type: none">– Carter Lab: Cleaned public metadata using natural language processing and deep learning– Farley Lab: Profiled enhancers in <i>Ciona intestinalis</i> using epigenomic data– Knight Lab: Characterized the effect of exercise on the gut microbiome	
University of California, San Diego Bioinformatics Research Assistant	La Jolla, CA April 2018–August 2018
<ul style="list-style-type: none">– Identified functional lncRNA in differentiating skin tissue	

INDUSTRY EXPERIENCE

Ferring Pharmaceuticals Bioinformatics Intern	San Diego, CA May 2019–August 2019
<ul style="list-style-type: none">– Characterized the NASH public data landscape and performed meta-analysis of patients with liver fibrosis	
Thermo Fisher Scientific Change Management Intern	Carlsbad, CA July 2016–September 2016
<ul style="list-style-type: none">– Supported the management of the IT change and release process	

PUBLICATIONS

- [1] **A. Klie**, B. Y. Tsui, S. Mollah, D. Skola, M. Dow, C.-N. Hsu, and H. Carter, “Increasing metadata coverage of SRA BioSample entries using deep learning-based named entity recognition”, en, *Database*, vol. 2021, Apr. 2021.
- [2] S. L. Baxter, **A. Klie**, B. Radha Saseendrakumar, G. Y. Ye, and M. Hogarth, “Text processing for detection of fungal ocular involvement in critical care patients: Cross-Sectional study”, en, *J. Med. Internet Res.*, vol. 22, no. 8, e18855, Aug. 2020.
- [3] S. L. Baxter, **A. Klie**, B. Radha Saseendrakumar, G. Y. Ye, M. Hogarth, and S. Nemati, “Predicting mortality in critical care patients with fungemia using structured and unstructured data”, in *42nd IEEE Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Jul. 2020.

COMPUTATIONAL SKILLS

- **Programming Languages:** Python, R
- **Python Packages:** PyTorch, NumPy, SciPy, Keras, Scikit-Learn, Matplotlib, Pandas, Dask, Vaex, Spark
- **Tools:** MS Office, Bash, LaTeX, Git
- **Previous Programming Languages:** Java, Matlab, C/C++

SCHOLARSHIPS AND AWARDS

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|---|-----------|
| • T32 NIH Training Grant Recipient | 2019–2021 |
| • National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) Honorable Mention | 2021 |
| • NCAA Postgraduate Scholarship | 2019 |
| • College Sports Information Directors of America (CoSIDA) Academic All-America of the Year | 2017 |
| • San Diego Hall of Champions Amateur Star of the Year | 2017 |
| • California Collegiate Athletic Association (CCAA) Player of the Year | 2017 |
| • D2 CCA Scholar-Athlete of the Year | 2017 |
| • Revelle College Outstanding Senior Award | 2017 |
| • UC San Diego Outstanding Graduate | 2017 |
| • Division II Bulletin All-America Fourth Team | 2017 |
| • CCAA Scholar-Athlete of the Year | 2017 |

OUTREACH AND MENTORING

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| • Research Mentor, Lumiere Education | September 2021-Current |
| – Mentor high school and undergraduate students in designing and conducting research projects over a 12 week program | |
| • Research Mentor, Summer Stem Institute | June 2021-Current |
| – Mentor 2 high school students in designing and conducting computational research projects over 6 weeks | |
| • Mentor, UC San Diego’s Graduate Application Mentorship Program (GradAMP) | August 2020-Current |
| – Mentor prospective Ph.D. students during graduate school application process | |
| • Volunteer Graduate Manager, UC San Diego’s Men’s Basketball Program | September 2019-Current |
| – Coach and advise student-athletes to improve mental well-being, as well as on-court and in-classroom performance | |

OTHER EXPERIENCE

- **Professional Basketball Player** June 2017-April 2019
 - NBL Canada with the Niagara River Lions (St. Catherines, Ontario, Canada) October 2017-April 2018
 - ProB Basketball League with the Giessen 46ers (Giessen, Germany) August 2018-December 2018
 - The Basketball League (TBL) with the San Diego Waves (San Diego, California) January 2019-April 2019
- UCSD Varsity Men's Basketball Team** La Jolla, CA
 - Team Captain September 2014-June 2017
 - Led team to most ever wins and "Sweet 16" in NCAA Division II Men's Basketball Tournament (2016 and 2017)