Jonah Langlieb

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https://jzl.github.io/ | Github://jzl | LinkedIn://jonah-langlieb

OVERVIEW

An early-career researcher with a knack for collaboration, a strong work ethic, a breadth of interdisciplinary knowledge, and a desire to communicate effectively

EDUCATION

SWARTHMORE COLLEGE
Graduated: May 2020
Bachelor of Arts
Computer Science Honors Major
Mathematics Course Major
Mathematics Honors Minor

TECHNICAL SKILLS

Proficient: Python (SciPy) • R • JavaScript/Node.js • Linux Sysadmin • BASH • LaTeX
Familiar: C • C++ • SQL • MatLab • PHP • OpenCV

COURSEWORK

COMPUTER SCIENCE
Honors Thesis
Theory of Computation
Artificial Intelligence
Parallel/Distributed Computing
(Grader, Lab TA, Writing Associate)

MATHEMATICS
Major Thesis (in Origami)
Category Theory
Statistical Methods II
Advanced Abstract Algebra
Honors Multi-Variable Calculus
Honors Linear Algebra

OTHER
Cellular & Molecular Biology *(Writing Associate)*
Population Biology *(Writing Associate)*
Intro to Chemistry
Electrical Circuit Analysis

AWARDS

Best Poster - Swarthmore Computer Science 2019 Senior Poster Session
Member - Society for Neuroscience

RESEARCH EXPERIENCE

MACOSKO NEUROSCIENCE LAB | Broad Institute of MIT and Harvard
Jun 2020 - Present | Cambridge, MA
- Worked closely with **Dr. Evan Macosko** to understand the spatial composition of the mouse brain
- Helped manage the lab's computational infrustructure, train incoming members, and develop new computational tools
- Combined understanding of spatial transcriptomic data with large-scale single cell sequencing annotations
- Gave a micro-symposium at the 2022 Society for Neuroscience Conference in San Diego as part of the BICCN Consortium

CHAGANTI NETWORKS LAB | Swarthmore Computer Science Department
Jan 2019 - Jun 2020 | Swarthmore, PA
- Worked with **Professor Vasanta Chaganti** on privatizing mobile user trajectories by applying differential privacy to Wi-Fi syslogs
- Surveyed various paper's results and converted to efficient NumPy code
- Our work was presented at the ACM Internet Measurement Conference 2019 and will be the subject of my honors thesis.

LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS | National Institutes of Heath
June 2018 – August 2018 | Bethesda, MD
- Worked with **Dr. Sameer Antani** on using traditional image analysis and machine learning to analyze biomedical echo-cardiograms
- Learned to survey and re-implement research paper image-analysis algorithms in OpenCV as well as apply different ML models to segment echo-cardiograms
- Presented my work at the 2018 NIH Summer Poster Day

WORK EXPERIENCE

SWARTHMORE WRITING PROGRAM | Writing Associate
April 2017 - May 2020 | Swarthmore, PA
- Tutored a group of 10-15 students each semester throughout all stages of the writing process, as well as hosted walk-in appointments, open to everyone
- Learned how to be an effective, empathetic, and flexible tutor and how to collaboratively communicate complex concepts clearly

SWARTHMORE COLLEGE COMPUTER SOCIETY | President
October 2016 - May 2020 | Swarthmore, PA
- Lead SCCS, an student-run club which manages a full-stack server cluster. We sysadmin Linux servers to provide custom services to help students
- Created a course planner (https://schedule.sccs.swarthmore.edu/) my freshman year, used by over half of students each semester
- Redesigned an email newsletter to include a custom weather visualization and events, now viewed by $3/4$ of the students daily