

JONATHAN MENDELSON

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EDUCATION

University of Pennsylvania, pursuing BSE in Computer Science; **GPA: 3.8** Class of 2022
• Courses: machine learning (grad), data structures, algorithms, linear algebra, computer architecture, probability
ACT: 36, Math II Subject Test: 800, Chemistry Subject Test: 800

EXPERIENCE

UPenn PRECISE Center, *Research Assistant*, Advisor: Mayur Naik May 2019 – Present
• Working on Datalog program synthesis by learning context-free grammars through counterexamples

Survios, *Intern* June 2018 – August 2018
• Built customer profile generation system that cross-references information from inconsistent sources such as Square and Springboard, generating 10,000+ profiles for marketing and operations purposes

UCLA Photonics Laboratory, *Independent Researcher*, Advisor: Bahram Jalali June 2017 – January 2018
• Led development of cell tracking algorithm that generates lineage trees and detects apoptosis
• Engineered algorithm in C++, openCV with guidance and data from partnered UCLA biology lab

UCLA Photonics Laboratory, *Research Intern*, Advisor: Bahram Jalali June 2016 – June 2017
• Created web interface for Phase Stretch Transform edge detection algorithm using LAMP, AJAX, Python

InVision, *Software Engineering Intern* July 2016 – September 2016
• Built employee database using LAMP, Google Maps API to connect 500+ remote employees

AWARDS AND ACHIEVEMENTS

Google Code Jam 2019, Round 3 Participant

UPenn Undergraduate Research Mentoring Program, awarded \$5,000 grant to conduct summer research
Regeneron STS, earned Student Initiative Badge, Scientific Research Report Badge for cell tracking project
USA Computing Olympiad, Platinum Level Competitor

LA Hacks 2017, won Grand Prize at UCLA's hackathon for *Tap*, which detects the location of taps on solid surfaces using piezo sensors and multilateration, converting surfaces into touchscreens for under \$20

PROJECTS & ACTIVITIES

Photographic Documentation of Pediatric Strabismus, *Researcher* May 2019 – Present
• IRB submitted for project in conjunction with the UMichigan AI Lab to measure strabismus via mobile app

Presto, *CEO & Co-Founder* January 2018 – September 2018
• Used Ionic, Google Firebase, Stripe API to build iOS app that allows users to order food from their seats
• Active in over 20 restaurants with \$2,500+ in orders a month, received thousands in funding from accelerator

UPGRADE: lead team of eight programmers and artists for game development club September 2018 – May 2019

PUBLICATIONS

Raghothaman M, **Mendelson J**, Zhao D, Naik M, Scholz B. (POPL 2020) Provenance-Guided Synthesis of Datalog Programs. In: *Principles of Programming Languages* (Conference)

Suthar M, **Mendelson J**, Mahjoubfar A, Lonappan C K, et. al. (SPIE 2018) Natural computational imaging. In: *Optical Data Science: Trends Shaping the Future of Photonics I, SPIE Photonics West* (Conference)

Suthar M, **Mendelson J**, Mahjoubfar A, et. al. (SPIE 2018) Automated hyper-dimensional live cell tracking. In: *Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues XVI, SPIE Photonics West* (Conference)

SKILLS

Technical Skills LAMP, C++, Java, C#, Python, OCaml, Objective-C, Swift, Ionic
machine learning, computer vision, Photoshop, After Effects, Bash, LaTeX, Node, Git

Other Juilliard Pre-College Composition Program, Sigma Alpha Mu Fraternity