

JONATHAN MENDELSON

jonom@seas.upenn.edu | 917.716.8940 | jonathanmendelson.com

EDUCATION

University of Pennsylvania, pursuing BSE in Computer Science; **GPA: 3.73** Class of 2022

- Selected courses: machine learning (grad), game theory, Bayesian inference, linear algebra, probability
- ACT: 36, Math II Subject Test: 800, Chemistry Subject Test: 800**

EXPERIENCE

Jane Street Capital, *Trading Intern* June 2021 – Present

- Using machine learning methods to improve models for pricing illiquid products

Facebook, *Research Intern*, Advisor: Satish Chandra January 2021 – April 2021

- Worked on differentiable programming approaches for ranking metrics using probabilistic methods
- Explored improvements to content ranking pipeline while investigating limitations of previous research

Facebook, *Software Engineering Intern* May 2020 – August 2020

- On Feed Ranking team. Worked on content recommendation, built neural nets to predict user's preferences
- Launched live experiments on 150M+ users. Improved click/view metrics

UPenn PRECISE Center, *Researcher*, Advisor: Mayur Naik May 2019 – Present

- Worked on template-free Datalog program synthesizer, GenSynth, using genetic algorithms and deep models
- Research to be used for various practical applications in networking and programming (e.g. Sporq)

Survios, *Intern* June 2018 – August 2018

- Built system that generated 10,000+ customer profiles for marketing/operations from Square, Springboard data

UCLA Photonics Laboratory, *Researcher*, Advisor: Bahram Jalali June 2016 – January 2018

- Led development of cell tracking algorithm in C++, openCV that generates lineage trees and detects apoptosis
- Tool used to significantly speed up data collection for various in vivo studies of partnered UCLA biology lab

PUBLICATIONS

Naik A, **Mendelson J**, et. al. (UIST 2021) Sporq: An Interactive Env. for Exploring Code Using Query-by-Example.

Mendelson J, Naik A, et. al. (AAAI 2021) GenSynth: Synthesizing Datalog Programs without Language Bias.

Raghothaman M, **Mendelson J**, Zhao D, et. al. (POPL 2020) Provenance-Guided Synthesis of Datalog Programs.

Suthar M, **Mendelson J**, Mahjoubfar A, Lonappan C K, et. al. (SPIE 2018) Natural computational imaging.

Suthar M, **Mendelson J**, Mahjoubfar A, et. al. (SPIE 2018) Automated hyper-dimensional live cell tracking.

AWARDS & 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

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
- VC-funded; was active in over 20 restaurants with \$2,500+ in orders a month

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

SKILLS

Technical Skills Python, C++, Java, PHP/LAMP, JS, HTML, OCaml, C#, Objective-C, Swift
machine learning (deep, reinforcement, evolutionary), computer vision, LaTeX, Node, Git

Other Attended Juilliard for 2 years in the Pre-College Composition Program