AARON YAO-SMITH

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Education

Cornell University, Ithaca, NY

August 2017 - Present

Computer Science, B.S. May 2021, GPA 3.804 / 4.000

Data Structures & Funct. Progr. (CS 3110) · Algorithms (CS 4820) · Syst. Progr. (CS 3410)

Experience

CoinFund LLC

May 2019 - August 2019

Software Engineer Intern

New York, NY

- · Architected/developed new trading automation systems (Golang, Apache Kafka)
- \cdot System enables generalized automated strategy, replacing manual trading; reducing trading workload overhead by ${\sim}5$ hours/workweek, and enabling short-term strategy
- · Maintained CI/CD to minimize time-to-market of new strategies (CircleCI, Docker)
- · Wrote infrastructure to pipeline and collate trade information from ~10 external HTTP/WS APIs to 1 endpoint in analysts' spreadsheets (**Python**, **Postgres**, **FRP**)

Singer Lab, Harvard Medical School

May 2018 - January 2019 $Boston,\ MA$

Research Assistant, Computational Biology

- \cdot Created COMET, a biostatistical analysis tool using novel statistical methodologies
- · Tool predicts cell cluster using single-cell RNA sequencing data with >20% predictive error reduction over traditional t-test methods (Python pandas, matplotlib)
- · Optimized algorithm continually: reducing >6 hour runtime down to 6 minutes

Projects

'COMET: Identifying candidate marker panels..'

2019

github.com/aaronyaosmith/comet-prototype

- · Independently architected tool designed for use by cell biology researchers. Open beta available at cometsc.com. (Flask, Python pandas, matplotlib)
- · Publication accepted in Molecular Systems Biology, presented poster at conference

'Incentive compatible disclosure' marketing study github.com/aaronyaosmith/icd-survey

2018

- · Independently implemented study as part of collaboration across 3 universities;
- · Deployed to production single live experiment of 300 subjects in 2 hours (Heroku)

interaction between subjects via web interface (Django, Python otree)

Leadership

Operations/Tech Chair

May 2019 - Present

Cornell Taiwanese American Society

 \cdot Oversee event setup/teardown, online presence: for club of 30 actives, 1300 on listserv

Subteam Lead/Project Manager

December 2018 - June 2019

AIDE, AguaClara Cornell

- · Project manager for team of 4 handling overall direction and delegation
- · Maintained parent team of 15's codebase CI/CD (Travis, AppVeyor)

Skills

Languages: Go · Python · JavaScript (ES6, TS) · HTML · CSS · Java · C · C++ ·

 $OCaml \cdot SQL$

Tools: Flask · Django · Node.js · React · Apache Kafka · Docker · AWS

 $Terraform \cdot Packer \cdot CircleCI \cdot Heroku \cdot PostgreSQL$

Other interests

Delta Kappa Epsilon (PC President) · Guitar/Voice · Cycling