Timothy Mou



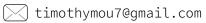
timothymou.com



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309-369-5170

EDUCATION

SWARTHMORE COLLEGE

BACHELOR'S IN COMPUTER SCIENCE AND MATHEMATICS 2019 - 2023 | Swarthmore, PA GPA: 3.99 / 4.0

SKILLS

PROGRAMMING

Proficient:

C++ • Java • Python • Haskell

Experienced:

C • OCaml • Javascript • Coq • Agda • IATEX

WORK AND RESEARCH EXPERIENCE

SWARTHMORE COLLEGE | TEACHING ASSISTANT

August 2022 - May 2023 | Swarthmore, PA

- → Designed and co-taught a competitive programming course targeting a wide range of backgrounds
- → Developed pedagogical materials including lecture notes, problemsets, and practice contests

AMAZON | SDE INTERN

June 2022 - August 2022 | Seattle, WA

- → Designed and implemented a maintainable and efficient method to guery large snapshot objects, saving an estimated four months of engineering effort per model change
- → AWS services used: S3, Glue, Athena

CARNEGIE MELLON UNIVERSITY | RESEARCH ASSISTANT

May 2020 - August 2021 | Pittsburgh, PA

- → Led and designed a corpus study of state machine protocols in smart contracts
- → Built static analysis tools to identify gas optimizations and access control vulnerabilities in Solidity programs
- → Created a practical implementation of Nominal Wyvern, a novel type system with dependent object types and decidable typechecking

JUNI LEARNING | COMPUTER SCIENCE INSTRUCTOR

September 2020 - May 2021 | Remote

→ Taught private computer science lessons for middle and high school students, focused on preparation for the USA Computing Olympiad

FERMILAB | RESEARCH ASSISTANT

August 2017 - May 2019 | Batavia, IL

- → Conducted research on the search for non-resonant signatures of Fermi contact interactions
- → Implemented new statistical methods to improve the current limit-setting processes using C++ and the data analysis framework ROOT

AWARDS

2023	Phi Beta Kappa Member	
2022	Silver Medalist (2nd place)	International Collegiate Programming Contest (ICPC) North American Championship
2021	Bronze Medalist (4th place)	ICPC World Finals Invitational
2021	Bronze Medalist (4th place)	ICPC North American Championship