

ELIOT H. SOLOMON

www.eliot.so • Houston, TX

EDUCATION

Rice University

MS in Computer Science (Advisor: Alan L. Cox)

May 2024

Houston, TX

Awards: Rice CS Graduate Research Fellowship (full funding), Louis J. Walsh Scholarship in Engineering

Rice University

BS in Computer Science (Specialization: Computer Systems)

May 2023

Houston, TX

GPA: 3.98, *summa cum laude*

Awards: Outstanding Senior Engineering Student (CS), Rice Engineering Alumni Junior Merit Award, Chevron Scholarship, McMurtry Committee of the Year, McMurtry Academic Award, President's Honor Roll, National Merit Scholar

EXPERIENCE

RiceArch Group, Computer Science Department, Rice University

May 2021 - present

Research Assistant

Houston, TX

- Collaborated with Prof. Alan Cox to implement transparent 64KB superpage support into FreeBSD on ARM CPUs ([info](#))
- Wrote efficient kernel code to manipulate page tables in conjunction with a customized reservation-based page allocator
- Investigated the PTE Coalescing feature of AMD's Zen microarchitecture by using empirical performance counter data

Computer Science Department, Rice University

July 2020 - present

Teaching Assistant (COMP 614, 2 × Head COMP 321, 2 × COMP 182, COMP 215, MCS Bootcamp) Houston, TX

- Oversaw the TA team and developed grading tools for COMP 321, an intro computer systems course with 210+ students
- Held office hours and proofread exams for COMP 182/215, discrete math and OOP classes with 300+ and 250+ people
- Developed 25 quizzes and 5 problem sets to help optimize learning outcomes for a group of incoming master's students

Bioinformatics Group, Computer Science Department, Rice University

May 2020 - December 2020

Research Assistant

Houston, TX (Remote)

- Evaluated statistical methods for inferring evolutionary networks from genetic data, working under Prof. Luay Nakhleh
- Automated data generation, parsing, and analysis using a computational pipeline built using 2000+ lines of Python code
- Improved result accuracy by running repeated large-scale simulations in a large university cluster computing environment

PUBLICATIONS

Eliot H. Solomon, Yufeng Zhou, and Alan L. Cox. 2023. An Empirical Evaluation of PTE Coalescing. In *The International Symposium on Memory Systems (MEMSYS '23)*. ACM, New York, NY, USA, 16 pages. ([preprint](#))

PERSONAL PROJECTS

MurtPass

Java, jte, PostgreSQL, HTML/CSS/JavaScript

- Built a customized ticketing and access control system tailored to the needs of McMurtry's "public party" Y2K ([press](#))
- Implemented features like Google Sign-In, QR code scanning, an automated waitlist, and a Venmo payment tracking tool
- Deployed the system to a secure Linux cloud server, achieving consistent sub-40ms response times even with 2000+ users

LEADERSHIP AND ACTIVITIES

Rice Computer Science Club

September 2020 - May 2023

Co-President (2022-23), Co-Internal Vice President (2021-22), I/O Committee Member (2020-21)

Houston, TX

- Led a 12-person officer team in charge of planning academic, social, and recruiting events for Rice's largest club and major
- Spearheaded an event series focused on introducing undergraduates to opportunities in the tech industry and grad school
- Improved the club's annual senior exit survey to collect data relevant to departmental diversity and inclusion initiatives

McMurtry College, Rice University

September 2019 - May 2023

Seniors (2022-23), External Socials Head (2021-22), Treasurer (2020-21), First-Year Rep. (2019-20) Houston, TX

- Coordinated Y2K, the first "public party" at Rice following the COVID-19 pandemic, with 900+ student attendees ([press](#))
- Designed a streamlined expense management system for the \$50K+ yearly budget of a 400+ student residential college
- Researched student needs through focus group sessions to help develop a detailed five-year strategic plan for the college