Hamza Sheikh

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Education

- **University of Utah** — SLC, UT
  Master of Science in Computer Science; GPA: 3.9 — *Jan. 2022 – Present*
- **American University of Beirut** — Beirut, Lebanon
  BSc in Computer Science & Minor in Economics; GPA: 3.7 (with distinction) — *Jan. 2019 – June 2021*

Experience

- **University of Utah** — SLC, UT
  Research Assistant — *July 2022 - Present*
  - Contributed to OrderSage, a new tool that measures the statistical relevance of ordering tests in experiments
  - Reviewed relevant papers and artifacts of OSDI and EuroSys for performance measurement
  - Ran tests to detect variance in cloud environments

  Summer Internship — *May 2022 - July 2022*
  - Created customizable code for cache-coherent accelerators for persistent memory crash-consistency using Rusts conditional compilation

  Teaching Assistant — *Jan 2022 - May 2022*
  - Prepared and delivered labs to senior undergraduate students on computer systems
  - Held regularly scheduled office hours to assist students
- **ACM EuroSys'2023** — Rome, Italy
  Shadow Program Committee - Volunteer — *Oct 2022 - Present*
  - Reviewed Papers relating to consensus, BFT, replication, linearizability, VMs, FaaS
  - Discussed paper with fellow researchers in the committee reaching an accept/reject decision
- **Maids.cc** — Dubai, UAE
  Data Analyst — *Oct 2021 - Dec 2021*
  - Analyzed success metrics of newly automated operations Reviewed user data for po
- **Wein Catering** — Beirut, Lebanon
  Founder — *April 2014 - Dec 2016*
  - Initiated a catering business, acquiring bids to operate kitchen and cafeterias in camping retreats

Projects & Publications

- **Avoiding the Ordering Trap in Systems Performance Measurement - *Under Review*:** Devise a methodology for studying the effects of ordering on performance experiments, including statistical tests for order dependence
- **Raft:** Implemented a distributed systems consensus algorithm using GoLang based on MITs 6.824
- **MapReduce:** Implemented MapReduce, a big data programming model using GoLang
- **Recommendation System:** Compared collaborative and content-based recommendater systems we built using Goodreads public books dataset
- **Bitcoin Predictor:** Created a machine learning (LSTM) model to forecast crypto currencies prices after creating a dataset by scraping related tweets for sentiment analysis and collecting influential determinants
- **GPU Optimization:** Parallelized and optimized Needleman-Wunsch algorithm via CUDA (x100 speedup)
- **On the Swap Distance Between Graphs:** Researched a more efficient algorithm for a graphs transformation problem, curated relevant literature work, and proved a list of statements relevant to the problem

Awards

- Computer Science Alumni Chapter Endowed Scholarship
- Boodai Endowed Scholarship Fund
- 11th in Lebanese Collegiate Programming Competition (LCPC)
- 2nd Runner Up at Startup Weekend environmental Edition by Techstars