zuizzms@bu.edu | 860-929-8245 | Personal Portfolio: https://github.com/zuizzms

## **EDUCATION**

- Boston University (2021-2025)
  - o BA/MS in Computer Science, GPA: 3.67 (Dean's List)

## **WORK EXPERIENCE**

- Software Engineer Intern for Triumph Engine Control Systems (In Progress: June 2023-Present)
  - Migrated software quality assurance/audit data from Synergy (Issue Tracking Software) to Jira using Perl (1000+ SQA documents that needed to be queried from Synergy and formatted using Adobe Acrobat Pro)
  - Developed Automated Criteria Evaluation tool for EMC110 ECU using Matlab (~70 test cases evaluated)
  - Analyzed unused code for Critical Design Review of T55-714C's engine control unit by generating map files for respective software builds (~9000 functions evaluated across both primary and reversionary channel)
  - Assisted in Stage of Involvement 2 Audit preparation with Honeywell (assessed 50+ software problem reports)
- Data Scientist and Investigative Journalist for The Grio (Spring 2023)
  - Created/evaluated a database of 3,285 exoneration cases in the U.S. and utilized NumPy to analyze patterns of warrant misconduct by police officials (identified 51 cases of warrant misconduct)
  - Presented findings at Demo Day event (150+ attendees), and published article in honor of Breonna Taylor's death
- Computer Assistant/Programmer and Learning Ambassador at BU Spark! (2023-Present)
  - Organized BU's Civic Tech Hackathon (100+ participants), weekly tech talks (~25 attendees/week), and created a
    welcoming environment in the Spark! Space for 30+ students during shifts (10 hours/week)
  - Created 3 programming micro challenges for Baby Got Hack event (70+ participants)
  - Guided ~20 students in Bug Bash Event, teaching students effective strategies for debugging
- Research Intern at Center for Quantitative Medicine, UCONN Health, Farmington, CT (Summer 2020, Summer 2022)
  - Weekly presentations to 10+ lab members on the progress of identifying CD8T Cell Memory Drivers
  - Given two feedback vertex sets computed by NETISCE, conducted perturbations on ~15,000 subsets of size 4 to identify targets for experimental cell fate reprogramming
  - Successfully reprogrammed the unperturbed embryo to 6/7 tissue fates using the corresponding experimentally verified perturbations on FVS control nodes (See <a href="https://veraliconalab.org/software/">https://veraliconalab.org/software/</a>)
- Resident Assistant at Boston University (2022-Present)
  - Support 42 undergraduate students in their transition to college life by identifying and addressing their needs according to the goals of community building, diversity, and inclusion
  - Participate in a duty rotation for ~600 students, and responded to emergencies during 24-hour shifts
  - Utilized crisis intervention and conflict mediation skills to facilitate students through 1-on-1 meetings
- BU Intramural Basketball Referee (2022-Present)

## PERSONAL PROJECTS (see portfolio)

- The Eight Puzzle
  - Uses state space search to solve the Eight Puzzle and compares the efficiency of various state space search algorithms (involving different heuristic functions)
- Connect Four
  - A Connect Four game that can be played with a human player or AI player. The AI player analyzes ideal future
    moves to improve its strategy (its intelligence can be adjusted by the user).
- Sudoku Solver
  - Implements recursive backtracking to solve any valid unsolved Sudoku puzzle

## **SKILLS**

- Technology Stack: Python, Java, C Programming Language, Perl, HTML, CSS, OCaml, UNIX, Git, AutoCad
- Languages: English, Urdu/Hindi (native proficiency), ASL (intermediate), Mandarin (intermediate)