

ELIZABETH HOM

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EDUCATION

Tufts University, School of Engineering

MEDFORD, MA

Bachelor of Science, Major: Computer Science | Minor: Engineering Management

MAY 2022

GPA: 3.60, Dean's List

Relevant Coursework: Data Structures, Algorithms, Digital Logic, Discrete Math, Eng. Leadership, Intro to Electrical Systems, Intro to C++, Machine Structures & Assembly-Lang Programming, Web Programming

PROFESSIONAL EXPERIENCE

Bank of America

NEW YORK, NY

Incoming Global Technology Summer Analyst

JUNE – AUG 2021

NASA Jet Propulsion Laboratory, Deep Space Network

PASADENA, CA

Software Engineering Intern

MAY – AUG 2020

- Developed software to track the flow of data through the Mars 2020 Rover Relay Bent Pipe
- Built JavaScript web GUI (HTML/CSS) to track, parse, & display data collection in real time

Tufts University, Dept of Computer Science

MEDFORD, MA

Senior Data Structures Teaching Assistant, Lab Leader

JAN 2020 - PRESENT

- Lead weekly lab session and office hours reviewing key data structures, algorithms, OOP principles in C++

Engineering for Kids

PHOENIX, AZ

Lead Instructor

MAY – AUG 2018, 2019

- Designed and taught STEM-based curricula (e.g. programming, game design, 3D printing)
- Managed safe classroom environment, adapted content to student needs and preferences

University of Florida, Dept of Chemical Engineering

GAINESVILLE, FL

Research Intern

JUNE – JULY 2017

- Conducted computational research alongside faculty & graduate students
- Modeled and simulated thousands of methanol-to-hydrocarbon reactions to determine ideal reaction conditions

SKILLS

- Programming Languages: C/C++, JavaScript, HTML/CSS, Java, PHP, Matlab, R, VHDL, Bash/Shell
- Tools and Technologies: Unix/Linux, Git, emacs/vim, Bit Packing, Assembly

LEADERSHIP & AFFILIATIONS

Rewriting the Code

RALEIGH-DURHAM, NC

Computer Science Fellow

JUNE 2020 – PRESENT

Tufts University Student Government

MEDFORD, MA

Senator, Student Body Associate Treasurer

MAY 2019 – PRESENT

- Advocate for needs of student body (focus on Asian American & engineering communities), especially in diversity
- Allocate \$2.3 million budget from student activities fee to student groups

PROJECTS

Pokémon Personal Project | <https://github.com/elizabethhom/pokemon-sims>

- Modeled after Pokémon franchise's computational methods, built programs to simulate battles, catching, and stats

Image Compressor & Decompressor

- Built an image compressor and decompressor that converts, packs, unpacks image bits with ~5% error

Spotlight Search / Grep | <https://github.com/elizabethhom/spotlight-search>

- Built a case in/sensitive search tool that queries, parses, categorizes, and stores database contents by words