ELIZABETH ZOU

Sport Programmer, Hackathon Fan, & Taekwondo Enthusiast

@ elizabeth.zou.0@gmail.com ☎ 214-517-7041 ✉ 305 Memorial Dr, Cambridge, MA, 02139
in linkedin.com/in/elizabeth-zou/ ⌨ github.com/wflms20110333 </> devpost.com/wflms20110333

EXPERIENCE

Information Security Intern
📍 San Diego, CA
Intuit – Security Research & Development
📅 May – Aug 2019

- Assessed the serverless deployment of Intuit Data Protection Service's Customer Management Database on AWS for security/deployment issues, provided remediations where applicable, and documented runbooks/playbooks for managing the service
- Deliverables include a data flow diagram, a threat model/attack map, automated tests, and monitoring/alerting infrastructure design

Software Engineer Intern
📍 Cambridge, MA
Microsoft – Xamarin Android
📅 Jan 2019

- Created analyzers that screen XML layout files for poorly written code in real-time, with multiple levels of diagnostics and user warning suppression
- Created a series of quick fixes for the analyzers, activated by a simple click
- Added support for a lint.xml file where users can define warning suppression for entire files and override attributes of the analyzers

Application Development Intern
📍 Grand Prairie, TX
Lockheed Martin – Missiles & Fire Control
📅 June – Aug 2017

- Used agile software engineering methods to enhance the user interface and user experience of the IETM for a logistics and sustainment application supporting the Air & Missile Defense maintenance operation
- Facilitated the daily review of software development & engineering activities

PROJECTS

Simulation of All-Pay Auctions with Convex Costs
📍 MIT 6.853
Computational Simulations and Literature Review
📅 Mar – May 2019

- *Description:* Modeled crowdsourcing situations as all-pay auctions and reviewed past work on approximately optimal mechanisms where bidders' utility functions are convex; ran experiments under a behavioral game theory model and analyzed how well these mechanisms perform in simulations
- *Final Report:* `tinyurl.com/6-853-final-report`

Codeforces Companion
📍 PennApps XVIII (Hackathon)
Chrome Extension
📅 Sept 2018

- *Description:* Generates customized, category-specific problem recommendations for the competitive programming platform Codeforces with a mathematical model based on real user submission data
- *Role:* Designed and programmed the UI/UX and implemented the AJAX requests that retrieve data from the backend server

AWARDS & ACHIEVEMENTS

Jan 2019	Battlecode (AI competition) Finalist (Top 16 in the world)
Apr 2017	National Winner of Lockheed Martin Code Quest
Apr 2017	8th Place out of 8500 high school teams in picoCTF (Capture The Flag cybersecurity competition sponsored by CMU)
Mar 2017	Winner of Hewlett-Packard CodeWars
Feb 2017	USA Computing Olympiad Platinum (highest) Division

EDUCATION

Computer Science & Mathematics
Massachusetts Institute of Technology
📅 Aug 2018 – May 2022   GPA: 5.0

COURSEWORK

Algorithms ● Linear Algebra ● Machine Learning ● Probability & Random Variables ● Computer & Network Security ● Algorithmic Game Theory ● Game Design

SKILLS

Algorithms | Data Structures | AWS
Docker | Object-Oriented Programming
Git | Front-End | Back-End | Firebase
Android Mobile Application Development

LANGUAGES

Proficient: Java ● Python ● C# ● Go ● Bash
Familiar: JavaScript ● HTML ● CSS ● SQL ● YAML ● XML ● MATLAB ● LaTeX ● Markdown

Native or Bilingual Proficiency: Chinese

ACTIVITIES

Technical Developer
Battlecode
📅 Feb 2019 – Present   📍 MIT

- Writes game code and creates game engine for the annual Battlecode competition and hackathon-style Battlehacks through the year

Tournament Coordinator
Sport Taekwondo
📅 Aug 2018 – Present   📍 MIT

- Organizes tournament signups and travel
- Made web app to ease tournament registration `github.com/wflms20110333/EZTourney`
- Organized three-day bubble tea fundraiser amassing almost $900 in profit
- Choreographed for, participated in, and helped lead the demonstration team
- NCTA National Championships Black Belt Female Team Poomsae Gold
- NCTA All-American & Scholastic All-American