

# Elizabeth Louie

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## EDUCATION

### CARNEGIE MELLON UNIVERSITY

#### BS IN COMPUTER SCIENCE

May 2023 | Pittsburgh, PA  
School of Computer Science  
SCS Dean's List 2/2 semesters  
GPA: 3.89 / 4.0

### THOMAS JEFFERSON HIGH SCHOOL FOR SCIENCE AND TECHNOLOGY

Grad. June 2019 | Alexandria, VA  
GPA: 4.5

## LINKS

Website: [elizabethlouie.com](http://elizabethlouie.com)  
Github:// [elouiestudent](#)  
LinkedIn:// [elizabethlouie](#)

## COURSEWORK

### UNDERGRADUATE

Great Theoretical Ideas in Computer Science  
Principles of Functional Programming  
Principles of Imperative Computation  
Mathematical Foundations in CS  
Matrices and Linear Transformations  
Calculus in Three Dimensions

### HIGH SCHOOL

Artificial Intelligence I & II  
Parallel Programming I & II  
Mobile/Web Development  
Functional Programming

## SKILLS

### PROGRAMMING

Proficient:

C • Java • Python • Dart • Flutter  
SML • Android • Git •  $\text{\LaTeX}$

Familiar:

React • Javascript • HTML • CSS • iOS • MySQL

### TOOLS

Git • Android Studio • VSCode • Vim • Microsoft Office

## ACTIVITIES

CMU Academic Development Peer Tutor  
CMU Club Swimming

## EXPERIENCE

### MOBILE COMMERCE LAB | RESEARCH INTERN

May 2020 - Present | Pittsburgh, PA

- Architected, designed, and developed **notifications** for the cross-platform **IoT Assistant App (IoTAA)** using **background location tracking** and **geofences** with **Flutter** under **Prof. Norman Sadeh**
- Working with **Aerin Zhang** to modify the notifications for an in-situ study

### HUMAN-COMPUTER INTERACTION INSTITUTE | RESEARCH INTERN

Jan. 2020 - May 2020 | Pittsburgh, PA

- Worked with **Tianshi Li** to collect online discussion data from Reddit through building **machine learning models** to identify privacy-related discussion and conduct **qualitative/quantitative analysis** to understand app developer motivations, actual practices, and gaps in knowledge with respect to privacy
- Work featured in paper accepted to CSCW 2020

### CISCO | EXTERN

Jun. 2018 - Jul. 2018 | Washington D.C.

- Collaborated in team of 3 to create solution for transportation problems through proposal to use **machine learning** and reroute bus routes to ease traffic congestion and presented it to a senior VP in Cisco
- Conceptualized a **rewards system** in an app that gives redeemable points when user takes public transportation or back roads

## PROJECTS

### SENIOR RESEARCH PROJECT

Aug. 2018 - May 2019 | Alexandria, VA

Developed an **Android** application for users with motor disabilities that uses the camera to **read head and eye movements** to manipulate a cursor on the screen and control the phone.

### HACKTJ

Apr. 2019 | Alexandria, VA

Built a **website** that employed **Twitter API** to track tweets about a specific topic using **natural language processing** and **real-time location tracking** to find out how people's ideas congregate based on geographical location.

### HOOHACKS

Mar. 2019 | Charlottesville, VA

Collaborated in a team of 4 to build **VR** application to teach children how a bill becomes a law and implemented **website** to test users with quiz after simulation and evaluate frequency of wrong answers using real-time histogram. Won **Best Art/Gaming Hack** out of 200 teams.

### HACKUVA

Mar. 2018 | Charlottesville, VA

Created **iOS application** using **Swift** that reads left and right eye winks and smiles in order to call for different emergency services using the SafeTrek API. Won second in **Best Use of SafeTrek API** out of 200 teams.

## PUBLICATIONS

- [1] T. Li, E. Louie, L. Dabbish, and J. I. Hong. How developers talk about personal data and what it means for user privacy: A case study of a developer forum on reddit. CSCW 2020, accepted.