# ZACKERY MERTZ

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#### **EDUCATION**

# Provo, UT Brigham Young University

Aug. 2016 - Dec. 2022

- B.S. in Computer Science, December 2022
- Undergraduate Coursework: Algorithms, Computational Theory, Software Engineering, Software Business, Computer Security, UI/UX Design, Web Design, Artificial Intelligence.

### **EMPLOYMENT**

#### Lab Researcher

# **BYU Internet Security Lab**

Aug. 2022 - Dec. 2022

- Performed research on end-to-end encryption.
- Studied codebase of over 30,000 lines to locate public/private keypairs and how they are encrypted.
- Used Python to work on code that encrypts and decrypts messages.
- Reported work to other researchers in stand-ups.

### Setter Verification

#### **Blue Raven Solar**

Aug. 2020 - Jan. 2023

- Verify customer qualifying information such as credit and income.
- Communicate with management across the country to assist in scheduling consultations.

Office Associate R.C. Willey Dec. 2018 - Apr. 2020

- Provided customer service and performed transactions with high volumes of cash.
- Reconciled cash drawer at the start and end of each shift.
- Worked as phone operator, providing information and assistance to customers.

#### **PROJECTS**

# Personal Website | React, Tailwind CSS | https://zackmertzportfolio.netlify.app/

• Check out my personal website I created for more info on my work.

# Knights Code | React, Typescript | https://knightscode.natehroylance.com/#/home/register

- A web application that teaches beginners how to code.
- Startup project with over 50 customer interviews and 200 feedback responses received to guide the direction of development.
- Has multiple units including variables, loops, and functions for new learners.

# Twitter Clone | Java, AWS - Lambda, DynamoDB, SQS

- A clone of Twitter with 14 social media features.
- Uses Amazon's AWS Lambda to link APIs for each feature of the app.
- Data stored and managed in DynamoDB, Amazon's non-relational database.
- Utilizes SQS to post statuses and allow the app to scale to over 20,000 users.
- Uses serverless event-driven architecture.

# Family Map Android App | Java, SQLite, Google Maps API

- A full-stack Android app that generates a user's family and displays it on a world map.
- Generates random names and events from a JSON file library.
- Backend integrated using DB Browser; frontend created with Android Studio Code.

# **Languages and Technologies**

- Java; Python; C++; C; SQL; JavaScript; HTML; CSS; React;
- Visual Studio; AWS; Android Studio; Intellij