# **KEY SKILLS**

- Languages: JAVA, JavaScript, TypeScript, Python, HTML, CSS, C++, C, C# and SQL.
- Libraries & Frameworks: React, Node, Flask, Spring Boot, SASS, Bootstrap
- Testing: Jest, Junit & Postman
- DevOps: AWS Management Console, AWS CDK, Travis CI, Webpack, Docker & GitHub Actions
- Tools: GitHub, Git, NPM, JIRA, Code Climate, ZenHub, and Slack.

### **EXPERIENCES**

#### SOFTWARE DEVELOPMENT ENGINEER, SunPower Corporation (Bellevue, WA)

Apr 2023 - Present

- Led the design and development efforts with the engineering team, PMs, and UI Designers to create a dynamic, React, and Java-based end-to-end Loan and Lease Origination System to streamline solar financing. This system is used by thousands of customers across the continental U.S., handling **\$25 million** annually.
- Designed and implemented an API Key Management and Authentication system enhancing accessibility and security for thirdparty client interactions.
- Contributed to the design and rollout of Role-Based Access Control (RBAC) in the Loan and Lease Origination System and Internal Ops Dashboard, benefiting thousands of users.
- Contributed to the design and rollout of an OTP-based Authentication system to streamline the user application process, eliminating the need for account creation.
- Optimized code maintainability by 20% by designing and implementing modular schemas, effectively reducing redundancy.
- Implemented robust data validation mechanisms for large-scale data models, fortifying security across request payloads.

#### SECURITY ENGINEER, Amazon (Bellevue, WA)

July 2022 - Apr 2023

- Created an ML-based anomaly model to identify users with an unusual number of HTTP requests.
- Designed and implemented a system to cluster security issues in a date range.
- This feature will help security engineers prioritize solutions focusing on top risks in Alexa, reducing turnover time by 50%.

#### SECURITY ENGINEER INTERN, Amazon (Bellevue, WA)

May 2021 – Aug 2021

- Designed and implemented an intelligent sampling model for data loss prevention.
- The ML model helped to catch clusters, which can result in data loss 99% of the time, thus reducing the overall risk by 99%.
- The initial pilot projected cost savings of \$270k/month for the service team.

#### WEB DEVELOPER, Honors Dept. (Fort Collins, CO)

Sept 2019 – May 2022

- Maintained and updated the website with various online services with over 1700 daily active users.
- Designed and implemented the online process for the Formal Thesis, which was previously based on papers.
- The front end uses MojoPortal and Bootstrap & the back end uses .NET and MS SQL Server.

#### RESEARCH ASSISTANT, CS Dept. (Fort Collins, CO)

Aug 2019 - Jan 2022

- Inspect data quality from six organizations through our tool to find anomalies.
- Upgrade Python code to improve the efficiency of the tool based on the inspection results.
- Worked on a tool that can find faults in data accurately without consulting the client, thus saving 2-3 days of the client's time.
- One of the four authors of the paper published at the IEEE Big Data 2020 conference.

# CYBERSECURITY INTERN, Cybersecurity Center (Fort Collins, CO)

May 2020 – May 2021

- Worked with Fort Collins Energy Department to find businesses and households that showed suspicious behavior.
- Used Long Short-Term Memory (LSTM) autoencoder tool & SQL Queries to analyze data for anomaly detection.
- This helped the Fort Collins Energy Department locate faulty equipment in the city.

# **EDUCATION**

Bachelor of Science in Computer Science (Summa Cum Laude) with Mathematics Minor University Honors Scholar

GPA: 4.0

Colorado State University (CSU), Fort Collins, CO

### **PROJECTS**

### TRIP PLANNER (React, Java, CSS, GitHub, Node.js & NPM) (More info can be found here)

- Created a single page, mobile application, and microservices similar to Google Maps, where users can plan a trip.
- Semester-long project in a team-based Agile software development environment.

#### MULTIPLAYER CHESS GAME (React, Java, CSS, GitHub, Node.js & NPM) (More info can be found here)

- Create a mobile responsive, single-page Multiplayer Chess game with microservices.
- Implemented secure user authentication with hashed passwords & Auth Tokens for seamless gameplay between users.