

# Phillip Johnson

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[Personal Portfolio](#)

[LinkedIn](#)

## WORK EXPERIENCE

### Colorado State University Undergrad Research Assistant

#### Hardware Reverse Engineer

May 2023 – June 2024

- Conducted research on Hardware Reverse Engineering as a framework for enhancing security.
- Led information gathering and the recreation of PCB schematics to identify inherent hardware vulnerabilities.
- Developed and executed an attack on a blackbox device, compromising its sensor output by up to 30%.
- Performed six controlled experiments to validate the effectiveness of our attack and ensure statistical significance.
- Co-authored the iFIPSEC 2024 conference research paper, sharing our expertise in reverse engineering.

## PROJECT EXPERIENCE

### Portfolio E-Commerce Website

NextJS, React 18, Flask, SQLite

- A photography portfolio built with NextJS for image optimization, a Python Flask REST API for user authentication and data storage.

### Personal Portfolio Website

React 18, React-three-fiber

- Single page personal portfolio created to display my personal projects.
- Hosted on GitHub Pages.

### iOS Swift Application

Swift, NSPersistentCloudKitContainer

- Application created to store and recommend albums based on user's album collection stored in iCloud.

### Trip Planning Class Project

React 16, Java RESTful API, Scrum

- Implemented features on provided repository on both frontend and backend.

## Languages/Technologies

- JavaScript
- React
- CSS
- HTML
- TypeScript
- SQL
- Java
- Python
- Swift

## Programming Skills

- Scrum/Agile Team Development
- Git
- Full Stack Development
- Test Driven Development
- Reverse Engineering

## Everyday Skills

- Leadership
- Adaptability
- Flexibility
- Communication

# EDUCATION

## Colorado State University, Fort Collins Co — *BS Computer Science*

August 2020 – May 2024

With a degree in Computer Science and a minor in Mathematics, I hold a deep passion for delving into the complexities of programming. Recently, I worked on research exploring the advantages of Hardware Reverse Engineering as a means to identify novel attack vectors. My academic background has instilled in me a strong foundation in Scrum/Agile Team Development, Object-Oriented Programming Design, and Test-Driven Development. Furthermore, I possess a diverse skill set of leadership, adaptability, and effective communication. I am eager to embark on my professional journey and contribute to an innovative team.

## Educational Experiences

- Team Driven Development:
  - Three different semester long Scrum team projects.
- Object Oriented Design
  - Practiced using Object Oriented design principles to improve software development.
- Cybersecurity and Networking:
  - Studied common Security and Networking protocols.

## Other Work Experience

### Advanced Auto Parts – *Retail Parts Pro*

January 2022 – May 2023

- Oversaw front of store operations, ensuring smooth sales and customer satisfaction.

### Mod Pizza – *All-Star*

January 2019 - July 2021

- As an All-Star, I was responsible for training new employees and was also expected to excel in every position within the kitchen.

### King Soopers – *Cashier*

November 2017 - October 2018

- My first job, I was promoted to Cashier from Courtesy Clerk because of work ethic and respect for customers.