

# Nicholas Gibson

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## SUMMARY

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Motivated and talented Junior Software Engineer experienced in developing and deploying software in Python, Java, and JavaScript. Skilled in designing and implementing user-focused web and mobile applications, utilizing AWS Services such as Lambda, DynamoDB, and API Gateway. Demonstrated excellence in academic and professional settings, including work as a Research Assistant and Software Engineer Intern, and a proven ability to learn quickly and collaborate effectively in a team environment.

## WORK EXPERIENCE

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### Earth Core

January 2023 - Present

*Software Engineering Contractor*

*Burlington, VT*

- Developed an integration system using AWS to enable communication between clients on site building management systems and the local electricity provider.
- Allowed clients to respond to smart grid events and save money on their electric bills.
- Used AWS services such as Lambda, API Gateway, and DynamoDB to develop the integration system.
- Implemented Influx DB to store time-series data for analysis and monitoring.

### Cox Automotive

June 2022 – September 2022

*Software Engineer Intern*

*Burlington, VT*

- Optimized the Google ReCAPTCHA key provisioning system, reducing processing time from 1 hour to just 3-4 minutes by leveraging AWS Lambda functions. The optimized system is currently in active use in a production environment.
- Developed REST APIs using Java Spring to facilitate communication between multiple applications and services, enhancing the overall functionality and usability of the system.
- Worked collaboratively with cross-functional Agile Scrum teams to design and develop software solutions that improved internal tools and systems.
- Participated in daily stand-up meetings, sprint planning, and retrospectives to ensure timely delivery of high-quality software.

### University Of Vermont

September 2022 – January 2023

*Research Assistant*

*Burlington, VT*

- Created and developed a Python framework for testing MPC protocols and analyzing their performance in various scenarios, including varying numbers of parties, client latency, and dropout rate.

## PROJECTS

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### Vertical (IOS Climbing App)

- Designed and developed a social media app for climbers using SwiftUI and Firebase to handle storage and authentication.
- Implemented a database of Vermont climbs and enabled users to create posts to share their climbing experiences.

### Interactive Hangboard

- Developed an interactive Hangboard using a Raspberry Pi and force sensors in a team of 2.
- Created a data visualization of the user's workout from a website hosted on the Pi's Apache server using Apache2, MariaDB, MySQL, and Python.

## EDUCATION

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### University of Vermont

August 2020 - May 2023

*BS, Computer Science (Cum Laude)*

*Burlington, VT*