# **Graham MacFarquhar**

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### **SKILLS**

**Languages -** Javascript, TypeScript, Python, Java, C, SQL, GraphQL, Bash **Libraries / Frameworks -** Node.js, Express, React, Flask, Django, WebSocket, PostgreSQL, MySQL, SQLAlchemy, HTML5, CSS3, JQuery, Bootstrap, Jest, Selenium, JWT, OAuth, Bcrypt **Tools -** VSCode, Github, GitLab, AWS, Heroku, Figma, Photoshop

## **EXPERIENCE**

# **Lead Software Engineer**

Oct 2023 – Dec 2023

PEEL - Node.js, Express, React, SQL, AWS, Heroku, Figma

Remote

- Engineered a REST API with Node.js, and Express, adding functionality and user interaction.
- Designed UI with Figma and converted designs into React components for a visually appealing interface.
- Integrated Amazon S3 for optimized storage of content, reducing data retrieval times by 20% and enhancing scalability and performance.

## **Full Stack Development Intern**

June 2023 – July 2023

Foqal.io - TypeScript, React.js, GraphQL, Agile Development

Remote

- Utilized GraphQL to enhance user group functionality, and improve task assignment capabilities.
- Conducted a comprehensive refactoring of variable assignments in Request-Type and Tag workflows, achieving a 70% improvement in code efficiency with TypeScript.
- Debugged and enhanced GraphQL queries for a seamless user experience, ensuring backward compatibility and efficient data retrieval.

Research Assistant Aug 2018 – May 2020

Memory Lab and CERLAB at Carnegie Mellon - Python, CSS3, HTML5

Pittsburgh, PA

- Reduced audio processing time by 50% in Audacity through Python scripting, showing Python proficiency.
- Upgraded Memory-Lab website's front end using CSS and HTML, enhancing user experience.
- Developed a Raspberry Pi-based app for sleep apnea audio data, demonstrating innovation.
- Successfully demonstrated the developed device to clients, showcasing communication skills.

## **TECHNICAL PROJECTS**

Warbler Live Demo Github

Full Stack Social Media Application - Python, SQLAlchemy, Bcrypt, WTForms, Jinja

- Developed user-following and message-liking features using many-to-many relationships with SQLAlchemy.
- Conducted unit and integration tests, achieving 100% coverage.
- Implemented user authentication and authorization using the Bcrypt hashing algorithm.

Jobly Live Demo Github

Full Stack Job Board Application - JS, React, Bootstrap, Node.js, Express, JWT, Bcrypt, JSONSchema

- Deployed a REST API using a test-driven development approach, achieving 100% coverage.
- Established authorization and authentication using JSON Web Tokens.
- Designed object-oriented models to encapsulate database operations and produce SQL statements.

#### **EDUCATION**

#### **Carnegie Mellon University**

2022

B.S. - Electrical and Computer Engineering

Pittsburgh, PA

Rithm School

2023

Full Stack Web Development Course

San Francisco, CA