# Jonathan Macoco

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## Technical Skills

**Programming Languages**: C, C++, Java, Python, R, JavaScript, HTML5, CSS, Dart
**Tools/Technologies**: Git, Linux, AWS, GCP, Flutter, React, Django, Docker, OpenMP, MPI, Tailwind, Bootstrap
**Database**: SQL, MongoDB, Firebase
**Skills**: Database Design, Agile Project Management, Problem Solving, Communication, Quantitative Analysis, OOP

## Experience

### Full Stack Software Engineer
Febuary 2024 – June 2024

Coinable
Remote

- Developed front and back end of a mobile application using Dart, Flutter, Node.js, AWS, and MongoDB
- Implemented email verification system utilizing Amazon Simple Email Service, resulting in reliable and secure communication within seconds for a seamless user authentication across a large platform
- Devised a RESTful API for efficient retrieval, storage, and updating of database records, delivering streamlined data management and scalability
- Designed and Implemented database architecture in MongoDB resulting in efficient data management and organization
- Created and managed a reverse proxy server using NGINX to efficiently route HTTPS requests to backend MongoDB database, optimizing performance and security

### Computer Science Expert AI Training
May 2023 – Febuary 2024

Scale AI
Remote

- Trained machine learning models on how to code in python and C, resolving issues that occur during training
- Conducted thorough code evaluations for optimal efficiency
- Documented and delivered clear explanations of the model output

## Projects

**Stock Market Predictor website** | *Django, Python, Tensorflow, Docker, HTML, Bootstrap, Git, GCP/Raspi-4*

- Designed and executed a full-stack web app allowing users to get predicted closing values of any given stock
- Engineered a model utilizing an LSTM neural network, that provides future stock prices base on stock trends
- Conducted a quantitative analysis on LSTM model, assessing the accuracy using RSME
- Integrated portfolio analysis comparing user portfolio to projected portfolio values, helping optimize investment strategies

**Movie Match** | *React, JavaScript, Firebase, Git*

- Created a full-stack web chat app, employing an algorithm to match users according to their movie preferences
- Incorporated Firebase to securely store user and movie data, creating reliable accessibility and robust data management
- Integrated TMDB API to dynamically fetch and present the latest movie data

**Plant Social** | *Flutter, Dart, Python, TensorFlow, Firebase, Git*

- Lead collaboration as a scrum leader in creating and designing a social application
- Designed intuitive front end interfaces integrating Firebase functionality to efficiently retrieve, manage and store user data
- Created camera functionality, sending data to MobileNetV3Small model used to classify plant images

**Factoring a Large Semi prime into its 2 Prime Factors** | *C++, OpenMP*

- Parallelized the code using C++ with OpenMP, resulting in a 28% speed up
- Successfully tackled the complex task of factoring a large semi prime into its two prime factors

## Education

### San Jose State University
Aug. 2024 – May 2026

*Masters of Science in Computer Science*
*San Jose, California*

### Chico State University
Aug. 2018 – May 2023

*Bachelor of Science in Computer Science*
*Chico, California*
*GPA: 3.3*