# Jonathan Macoco

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#### **Technical Skills**

- Programming Languages: C, C++, Java, Python, R, MySQL, Javascript, HTML5, CSS, Dart
- Tools: Git, Docker, Django, React, OpenMP, MPI, AWS, GCP, Flutter, Tensorflow, Scikit-learn
- Skills: Database Design, Full Stack Web Development, Agile Project Management, Problem Solving, Adaptability, Communication, Software Development, Quantitative Analysis, OOP

## **Projects**

## **Movie Match** https://project-moviematch.com

• I Developed and designed a full-stack web application using React, Javascript, Tailwind, Git, and Firebase. This application allows users to curate their own personalized movie list, and based on that movie list, they will be displayed to other users whom they can chat with.

## **Stock Market Predictor website** <a href="https://stock-predictor.com/">https://stock-predictor.com/</a>

• Designed and implemented a full-stack web application with Django, Python, Tensorflow, Docker, HTML, Bootstrap, Git, and GCP. This application predicts stock closing prices, allows users to create accounts, and enables personalized portfolios for tracking performance and comparison.

### **Plant Social**

• Collaborated as a key team member and scrum master in creating and designing a social application utilizing Flutter, Dart, Google Firebase, and Tensorflow. This platform allows users to create an account and share images and information pertaining to plants. Users also have the capability to capture images of plants and identify the plant type.

## Factoring a Large Semiprime into its 2 Prime Factors

Successfully tackled the complex task of factoring a large semiprime into its two prime factors. I
was able to parallelize the code using C++ with OpenMP, resulting in a 28% speed up

### **Convolutional Neural Network**

• Developed the forward step of a backpropagation algorithm for a convolutional neural network, implemented entirely in C++.

### **Experience**

**Coinable**, Remote — Software Engineer Internship (February 2024-March 2024)

• I helped develop a crypto market place application. During my time as an intern I played a pivotal role in the redesign of the database and mobile architecture, focusing on normalizing the database and minimizing redundancy. Additionally I contributed to both front-end and back-end development efforts, also helping facilitate connectivity between the two.

**Scale AI (Remotasks)**, Remote — computer science expert AI training (May 2023-Present).

• I conduct thorough code evaluations for optimal efficiency. I also document and deliver clear explanations of the model output. Additionally, I help proficiently trained machine learning models on how to code in python and C, resolving any issues that occur during training.

## Education

California State University, Chico Aug. 2018 – May. 2023

Bachelor of Science in Computer Science GPA: 3.287

## **Awards**

**Dean's Honor List:** Fall 2018, Fall 2021, and Spring 2022

**ACM:** ICPC Competitor Spring 2022