# JONATHAN MACOCO

jtmacoco.com | 510-828-3291 | jtmacoco@gmail.com | linkedin.com/in/jonathan-macoco

## EDUCATION
**Masters of Science, Computer Science**                                           Expected: May 2026
San José State University, San José, California
- Focus in Machine Learning and Parallel Computing

**Bachelor of Science, Computer Science**                                          Aug 2018 - May 2023
Chico State University, Chico, California
- GPA: 3.3

## TECHNICAL SKILLS
Programming Languages: C, C++, Python, JavaScript, Java, R, 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,** Coinable, Remote                                  Feb 2024 - Jun 2024
- Implemented email verification system utilizing Amazon Simple Email Service, resulting in reliable and secure communication within seconds for a seamless user authentication, for up to 50,000 users
- Devised a RESTful API for efficient retrieval, storage, and updating of database records, delivering streamlined data management and scalability
- Formulated and implemented database architecture in MongoDB resulting in efficient data management
- Built 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,** Scale AI(remotasks), Remote               May 2023 - Feb 2024
- Trained machine learning models how to code in Python and C, resolving issues during training
- Conducted thorough code evaluations for machine learning models, increasing efficiency
- Documented and delivered clear explanations of model output, resulting in model improvement

## PROJECT EXPERIENCE
**Stock Market Predictor Website**
- Designed a full-stack web app in Django, to predict closing stock values, aiding users with investment strategies
- Engineered a model in Python utilizing an LSTM neural network, providing future stock prices based on stock trends
- Conducted quantitative analysis on LSTM model, evaluating performance utilizing RMSE, assisting in error reduction
- Integrated portfolio analysis comparing user portfolios to projected portfolio values, helping optimize investment strategies

**Movie Match**
- Devised a full-stack web chat app using React, employing an algorithm allowing users to be matched according to movie preferences
- Incorporated Firebase to securely store user and movie data, creating reliable accessibility and robust data management
- Integrated TMDB API to dynamically fetch data, ensuring users get latest movies

**Plant Social**
- Led collaboration as a scrum leader in creating and building a social application, ensuring sprint deadlines were met
- Designed intuitive front end interfaces with Flutter enhancing UI
- Integrated Firebase functionality to efficiently retrieve, manage and store user data, producing a seamless user experience
- Developed camera functionality, sending image data to MobileNetV3Small machine learning model used to classify plant images with high accuracy

**Factoring a Large Semi prime**
- Parallelized code leveraging C++ with OpenMP, resulting in a 28% speed up
- Implemented character array to store large prime numbers, ensuring efficient memory usage
- Employed prime density analysis and Sieve's algorithm to generate a list of prime numbers