Marco Scarlata

650-537-6178 | marcoscarlata@google.com | linkedin.com/in/marco-scarlata | github.com/mscarla2

Skills

Languages : C++, Python, Java, JavaScript, HTML/CSS, SQL
Frameworks: gRPC, Protocol Buffers, Flask, Django, React, Svelte
Libraries/Tools: Tensorflow, TFLite, Node.js, Keras, RESTful APIs, Pandas, NumPy, Bazel/Blaze, BigQuery

Experience

Google | **Software Engineer** — Mountain View, CA
Pixel Watch Device Algorithms — *Sep 2022 – Current*

- Parterned with a **Research Scientist** to develop end-to-end, a real-time gesture recognition algorithm using **C++**, **TFLite** and **Python**, integrated with various **IMU** sensors and optimized for low latency and power consumption
- Augmentation and code ownership of the Low Latency Off-body Detection Sensor algorithm through using **C++**
- Refined core algorithm components (e.g., **data buffering**, **sensor fusion**), and **designed telemetry systems** with **metrics dashboards** and **analysis pipelines**, resolving **50+ bugs** to improve **accuracy and latency**.
- Collaborated with cross-functional teams to integrate the gesture-based algorithm into **1P apps**, resolving system-level conflicts and enabling new user interaction methods, culminating in recognition through **high-visibility demos**

Cloud Asset Inventory & Search

- Productionized a reliable, scalable solution in **C++** to enrich Cloud Asset Inventory with structured, enhanced metadata into our centralized data warehouse for cloud-managed assets, impacting **over 90%** of GCP Resources and increasing user adoption YoY with a current user base of **over 500,000** active users
- Assisted in launching Asset Enrichment end to end into Asset Query System using **C++**, **SQL** & **Spanner**, leveraging enriched metadata to deliver efficient query results of **more than 275** GCP asset types for SCC customers
- Drove a cross-team engagement to optimize a workflow runner using **gRPC**, **Borg** & **Python**, thereby reducing development time by **25%**, saving the equivalent of **10 SWE weeks**

OpenSesame | **Software Engineering Intern** — Portland, OR
Front-End Division — *Jun 2020 – Aug 2020*

- Extended language drop-down feature to include search selection for courses using **Angular and TypeScript**
- Extrapolated multiple burn-down processes with **Behat, API, and Unit tests**, identifying and resolving over 6 bugs from recent sprints, including one that prevented the landing page from loading for IE users
- Built out end-to-end tests by replicating over 10 deprecated legacy tests from **Drupal to Angular & Selenium**

ANDSystems | **Machine Learning Intern** — Ulaanbaatar, Mongolia
Machine Learning Team — *Jun 2019 – Aug 2019*

- Analyzed the purchase history of 100,000+ users buying coupons by regression analysis using **Python, Pandas, NumPy, and PyTorch**, identifying an under-marketed sector in sales that increased revenue by 10%
- Launched an MVP module-based recommender system with caching for an e-commerce platform (*BananaMall*) with 10,000+ downloads on the Playstore and 100,000+ users, using **Python, SKLearn, and DynamoDB**

University of Rochester | **Teaching Assistant & CETL Tutor** — Rochester, NY
Computer Science Department — *Sep 2019 – Dec 2021*

- Taught students in *Web Programming, Data Structures & Algorithms, and Formal System & Computations* courses
- Conducted tutoring sessions with 15+ college students, resulting in a 30% increase in their respective course grades

Projects

Trading Algorithm | *Tensorflow, Python, MySQL*

- Developed a mock quantitative investment platform that utilizes Tensorflow to deliver accurate trading predictions
- Includes Python quantitative trading strategies including Pattern Recognition, Commodity Trading Advisor, Monte Carlo, Options Straddle, Heikin-Ashi, Pair Trading and VIX Calculator

Education

University of Rochester — Aug 2018 – May 2022
Bachelors in Computer Science | *Minor in Psychology* — *Rochester, NY*

- **Major GPA**: 3.5/4.0 – Consecutive Dean's List Recipient
- **Relevant Courses**: Data Structures & Algorithms | Formal Systems & Computation | Web Programming | Human Computer Interaction | Intro to Artificial Intelligence | Database Systems | Natural Language Processing |
- Dean's Scholarship & Rochester National Grant Awardee