Marco Scarlata

 linkedin.com/in/marco-scarlata | github.com/mscarla2

Skills ⊞

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

Experience ⌨

Google | Software Engineer
Mountain View, CA

Pixel Watch AI/ML & Device Algorithms — *Sep 2022 – Current*

- Productionized a novel, low-power ML gesture recognition algorithm (**C++, Python, TFLite**) for wearables, partnering with a Research Scientist to lead end-to-end integration, on-device optimization, and sensor fusion (IMU & physiological signals); achieved up to **90% accuracy**, <1ms inference, <250ms E2E latency
- Owned and optimized the Low Latency Off-body Detection (**LLOB**) algorithm – a core feature for most algorithms and system performance – resolving false detections and power regressions, raising reliability across all shipped devices
- Implemented rapid on-device telemetry and ETL dashboards; led LLOB bug triage, closing **300+ bugs**
- Partnered with three 1P App teams to integrate gesture APIs, building POCs, resolving blockers, and enabling five new user interactions for executive demos and UXR validation
- Mentored teammates on sensor integration and MCU-level development; led design reviews and authored the "MCU-based Practical Telemetry Guide" referenced by **14+ engineers**

Cloud Asset Inventory & Search

- Productionized a scalable C++ solution to enrich Cloud Asset Inventory with structured metadata for cloud-managed assets, impacting **90%+** of GCP resources and boosting adoption to **500,000+** active users
- Enabled launch of Asset Enrichment in the Asset Query System (**C++, SQL, Spanner**), powering efficient queries across **275+** GCP asset types for SCC customers
- Drove cross-team optimization of a workflow runner (**gRPC, Borg, Python**), reducing development time by **25%** resulting in **10 SWE weeks** saved

OpenSesame | Software Engineering Intern
Portland, OR

Front-End Division — *Jun 2020 – Aug 2020*

- Enhanced course language selection with searchable dropdowns (**Angular, TypeScript**); built and ported 10+ end-to-end tests from **Drupal** to **Angular/Selenium**, expanding QA coverage
- Resolved 6+ sprint bugs—including a critical IE landing page issue—by extrapolating burn-down processes and strengthening test automation with **Behat, API, and Unit tests**

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

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

Publications

- **A small-molecule allosteric inhibitor of BAX protects against doxorubicin-induced cardiomyopathy**. *Nature Cancer*, 2020. Contributing author – implemented data-processing scripts and statistical analysis.