

João Pedro Ferreira Barbosa

joaobarbosa@cmu.edu | +1 (412) 478-9142 | linkedin.com/in/jpfbarbosa | github.com/ojpbarbosa

EDUCATION

Carnegie Mellon University

Bachelor of Science in Computer Science

Pittsburgh, United States

May 2029

Technical High School of Campinas

Technical High School Diploma in Informatics

São Paulo, Brazil

Dec. 2023

GPA: 3.8/4.0 – Selected Coursework: Service Oriented Architecture, Agile Software Development Practices, Assembly Language, Topics in Operating Systems, Topics in Object-Oriented Programming, Data Structures

EXPERIENCE

iFood

Software Engineer Intern & Junior Software Engineer

São Paulo, Brazil

Jan. 2024 – Aug. 2025

- Designed and launched the Order External Audit API & web interface, giving external partners access to 50M daily log records; queried 6K+ times monthly, cut support requests from integrators by 18%.
- Strengthened resilience of the order dispatch platform by optimizing polling, webhook and MQTT APIs that handled 600M+ requests and 4M+ orders/day, maintaining 99.999% uptime for 55M+ MAU.
- Owned 11 Kotlin and Go microservices on Kubernetes that powered cross-platform messaging for 310M+ daily order updates across 400K+ restaurants and integrators.

Technical High School of Campinas

Teaching Assistant, Informatics & Systems Development

São Paulo, Brazil

Mar. 2022 – Dec. 2023

- Provided 12 hours/week of recitations and 1:1 tutoring for 370+ students across all Informatics & Systems Development technical courses.

PROJECTS & RESEARCH

Particles on Canvas: Creating Art to Further Scientific Divulgence

Full-Stack Technical Lead

Meyrin, Switzerland

Apr. 2024 – May 2024

- Led a 6-member team to develop an open-source data visualization pipeline using PyTorch neural nets, Flask REST API, and React frontend to transform particle collision data into abstract digital art.
- Delivered a scalable demo within 4 weeks, placing 1st in Latin America and ranking Top 27 of ~500 projects globally in a CERN-sponsored competition.

Agent-Based Pandemic Simulation for Optimal Public Health Crisis Management

Honors Thesis Researcher

São Paulo, Brazil

Feb. 2023 – Mar. 2024

- Proposed and implemented an agent-based simulation of 1M+ individuals in São Paulo with 12 correlated demographic attributes to study pandemic spread. Achieved 58.5% MAPE accuracy in simulating COVID-19 on a single consumer-grade PC, outperforming two benchmark models.
- Awarded 4th place nationwide at Brazil's largest science and engineering fair, recognized for technical rigor and societal relevance.

SKILLS

Languages & Frameworks: Kotlin, Python, Go, TypeScript, Java, C#, C, C++, Spring, Node.js, React, .NET

Systems & Tools: Docker, Kubernetes, AWS, SNS, SQS, S3, EC2, Redis, ELK, MQTT, SQL, Postgres, Apache Ignite, Git, GitLab CI, Datadog, Terraform, DynamoDB, OpenSearch, Prometheus, Grafana, Kafka

ACTIVITIES & LEADERSHIP

STEM Olympiad Club, Founding Member and National Multi-medalist

Sep. 2022 – Dec. 2023

Community-based Prep Course, Volunteer Mathematics Instructor

Jun. 2022 – Jan. 2024