## Fernanda de Macedo

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#### **SUMMARY**

Software Engineer with 3+ years of experience building and scaling data pipelines and microservices. Passionate about building efficient, low-latency systems that scale. Previous experience developing fintech, e-commerce and scientific research platforms.

### **SKILLS**

- Programming Languages: Python, JavaScript, Java, C++
- Frameworks & Libraries: Django, Django REST Framework, Flask, FastAPI, Pytest
- DevOps & CI/CD: Docker, Kubernetes, ArgoCD
- Cloud & Infra: AWS, Redis, NGINX
- Monitoring & Logging: Graylog, Grafana, Prometheus
- Data & Messaging: PostgreSQL, RabbitMQ, Kafka
- Project & Development Practices: Agile/Scrum, clean code, test-driven development, performance tuning, system
  design, algorithms and data structures

#### **EXPERIENCE**

## Center for Astrophysics at Harvard & Smithsonian

July 2023 - Present

Software Engineer II - Backend

Cambridge - MA

- Designed and optimized data pipelines within NASA's Astrophysics Data System (ADS) to ingest and transform high-volume research metadata, enabling scalable search and retrieval for 30M+ documents across scientific domains.
- IImplemented a full-stack redesign of a high-latency PDF generation workflow, replacing image proxy layers with direct S3-based access, reducing average response time from 60 seconds to under 200 milliseconds, greatly reducing user experience.
- Built and optimized backend APIs within a microservices architecture to support data-intensive, latency-sensitive research pipelines; ensured robust performance and reliability through targeted testing and tuning.
- Actively contributed to infrastructure migration efforts, deploying services across Kubernetes clusters, while maintaining strong CI/CD hygiene through tools like ArgoCD.
- Collaborated with researchers and engineering teams to develop APIs supporting scientific data workflows, and investigated and resolved cross-service issues impacting pipeline reliability and data accuracy.
- Demonstrated greenfield development ownership by writing RFCs, defining architecture for new ingestion systems, and rolling out changes across multiple services, environments, and stakeholder teams.

Career Break May 2022 - July 2023

• Took a planned career break after relocating to the United States to complete the H-1B visa processing and secure new employment after an initial offer was rescinded.

Nubank Nov 2021 - May 2022

Software Engineer

Remote - Brazil

- Migrated CI/CD pipelines from Jenkins to Tekton and developed automation scripts to map and migrate over 900 repositories from Bitbucket to GitHub, improving deployment efficiency for our financial applications.
- Led initiatives to automate change management processes via API integration between GitHub and Jira, making compliance processes more seamless for development teams.
- Worked extensively with cloud-based infrastructure, leveraging AWS, Docker, and Kubernetes for scalable deployment.

Avenue Code Feb 2021 - Oct 2021

Backend developer

Remote - Brazil

- Developed and maintained microservices for an Order Management System, integrating with 50+ marketplaces, migrated the application from a monolith to a microservices architecture for improved scalability and performance.
- Implemented API integrations for payment processing and order management using Django, FastAPI, and PostgreSQL.
- Utilized RabbitMQ for asynchronous message handling between services.
- Applied industry-standard engineering practices such as clean code, automated tests with 80%+ coverage, Git-based version control, CI/CD workflows, Agile methodologies (Scrum), and peer code reviews.

# **EDUCATION**

**Universidade Federal do Rio Grande do Norte**Bachelor of Science in Science and Technology

**Cornell University** 

Computer Science, One Year Study Abroad Program

Brazil

New York, United States