

ANDRE LUSTOSA CABRAL DE PAULA MOTTA

Raleigh, NC | 919-985-4080 | dexmotta6@gmail.com | [LinkedIn](#)

SUMMARY

Principal Software Engineer and Team Lead at Red Hat with experience delivering enterprise Linux platform components, reusable Python packages, accelerator compatibility, software supply chain controls, and CVE remediation. PhD in Computer Science with a background in software engineering, cloud services, and open-source ecosystems.

- Leads cross-functional engineering work across component owners, upstream maintainers, security teams, and CI infrastructure teams.
- Builds reliable software foundations for enterprise workloads across CPU, CUDA, and ROCm environments.
- Experienced in Python, C#, .NET, cloud platforms, containers, APIs, and data systems.

EDUCATION

PhD, Computer Science | North Carolina State University 2025

Activities: Graduate Teaching Assistant, C and Software Tools, Software Engineering

BSc, Computer Science | Federal University of Minas Gerais 2019

Honors: Best Student Award in Computer Science, 2019

AREAS OF EXPERTISE

- | | | |
|------------------------------|---------------------------------|-----------------------------|
| - Enterprise Python Packages | - Supply Chain Security | - Cloud Infrastructure |
| - Linux Platform Components | - CVE Remediation | - Containerization |
| - Accelerator Enablement | - Cross-Architecture Validation | - API Development |
| - Technical Leadership | - Software Reliability | - Microservices |
| - Open-Source Ecosystems | - CI/CD Automation | - Cross-Functional Delivery |

EXPERIENCE

Red Hat Raleigh, NC

Principal Software Engineer | Team Lead, AIPCC Ecosystems Team June 2025 - Present

- Lead the AIPCC Ecosystems engineering team responsible for enterprise Python components and accelerator enablement, setting technical direction and coordinating delivery across partner teams.
- Design and maintain Python packages that provide reusable building blocks for supported enterprise workloads across CPU, CUDA, and ROCm environments.
- Architect cross-architecture qualification pipelines with smoke, capability, integration, and upstream test coverage to improve package compatibility and release reliability.
- Strengthen software supply chain security by defining package intake and validation controls that reduce the risk of compromised or untrusted components entering supported repositories.
- Coordinate CVE maintenance across package lifecycles, including vulnerability triage, patch integration, build validation, and release readiness.
- Partner with upstream open-source maintainers and internal component, security, CI, and release engineering teams to resolve compatibility issues and deliver maintainable platform updates.
- Establish documented quality standards, escalation paths, and CI/CD automation that improve reproducibility, onboarding, and operational ownership.

Microsoft Redmond, WA

Artificial Intelligence and SDE Intern May 2023 - August 2023

- Built Python and C# data analysis and predictive tooling for the Azure Operator 5G Core engineering organization.
- Prepared datasets, evaluated model behavior, and implemented test workflows to improve reliability before integration into software systems.
- Developed Python microservices and APIs with Flask and FastAPI, documented technical workflows, and incorporated peer-review feedback.
- Coordinated project delivery with software engineers and data specialists through Agile planning and regular technical reviews.

ANDRE LUSTOSA CABRAL DE PAULA MOTTA

Raleigh, NC | 919-985-4080 | dexmotta6@gmail.com | [LinkedIn](#)

Oceansoft

Lead Software Engineer / CTO

Brazil

November 2017 - August 2019

- Led delivery of mobile applications, web applications, APIs, databases, and data pipelines for commercial software products.
- Designed .NET services and REST APIs, including asynchronous workflows with RabbitMQ and data access through EntityFramework.
- Architected Azure-hosted microservices and containerized deployments using Docker and Kubernetes.
- Managed SQL and NoSQL data systems and improved application performance, scalability, and operational reliability.
- Coordinated developers, designers, and business stakeholders across planning, implementation, review, and release activities.

ADDITIONAL EXPERIENCE

CSU MarketSystem

Machine Learning Engineer

Brazil

July 2018 - July 2019

- Developed .NET and Python predictive models for market trends and customer behavior and integrated them into existing software products.
- Prepared and analyzed datasets using SQL, Hadoop, Pandas, and NumPy and optimized database access with PL/SQL and SQLAlchemy.
- Collaborated with engineering teams on architecture, deployment, testing, documentation, and Agile delivery.

RESEARCH EXPERIENCE

North Carolina State University

PhD Researcher

Raleigh, NC

2019 - 2025

- Conducted software engineering research on interactive search and optimization for software product-line configuration under Professor Tim Menzies.
- Developed Python and C# methods that reduced decision-maker effort and the number of software configuration evaluations required.
- Evaluated techniques on software engineering problems and collaborated with interdisciplinary research teams.

NSF Grant Research Project

2019

- Evaluated applied machine learning techniques for matching resumes with job descriptions using Python, C#, and JavaScript.
- Studied how data encodings affected matching performance and contributed results to peer-reviewed research.

SKILLS

Programming: Python, C#, C++, JavaScript, SQL

Platforms and Frameworks: Linux, .NET Framework/Core, Xamarin, React Native, ReactJS, Django, Flask, FastAPI

Acceleration and Containers: CPU, CUDA, ROCm, Docker, Kubernetes

Data Systems: Firebase, Hadoop, Oracle Database, Microsoft SQL Server, MySQL, PostgreSQL, SQLAlchemy

Cloud Platforms: Azure, AWS, GCP

Languages: English (Fluent); Portuguese (Fluent); Italian (Fully Proficient); French (Proficient); Japanese (Proficient)