

# KELLY CHRISTINE ALVARENGA DE CASTRO

*Software Engineer*

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**OBJECTIVE:** Data Engineer | Cloud & Kubernetes DevOps Specialist

## Professional Summary

Results-driven Software Engineer with an MBA in Data Science (ICMC-USP) and a postgraduate degree in Big Data & Data Engineering (Poli-USP). Over 10 years of hands-on experience architecting and operating end-to-end data solutions on Microsoft Azure. Expert in containerization (Docker, Kubernetes/AKS), streaming pipelines (Apache Kafka, Azure Event Hubs), and cloud orchestration (Azure Data Factory, Databricks). Proven track record implementing IaC (Terraform, ARM), CI/CD (Azure DevOps, Git, Jenkins) and data security best practices (Azure Key Vault). Skilled in relational (SQL Server) and NoSQL (Cosmos DB, MongoDB) databases, Python/Scala development, and low-code automation (Power Platform). Passionate about driving operational efficiency and compliance in regulated environments.

## Education

- **MBA in Data Science (ICMC-USP), 2024–2025**  
Thesis: Ensemble Approach for Anomaly Detection in Oil Wells (3W dataset)
- **Postgraduate Certificate in Big Data & Data Engineering (Poli-USP), 2023–2024**  
Capstone: Machine Learning–powered Big Data Monitoring for Oil-Well Failure Detection
- **B.S. in Software Engineering (UNINTER), 2021–2025**  
Capstone: ARBOSOCIAL—Integrated Arbovirus Prediction System Using Social Determinants
- **B.A. in Performing Arts (UFOP), 2001–2006**

## Professional Experience

### **SLB – OneSubsea - Data Engineering Analyst | May 2024 – Present**

- Built and maintained scalable ETL/ELT pipelines in Azure Databricks and Microsoft Fabric.
- Automated workflows using Azure Data Factory and custom Apache Airflow - style orchestration.

- Integrated real-time event streams via Kafka/Confluent and Azure Event Hubs, ensuring governance and security.
- Developed reusable Python/Scala libraries for data processing efficiency.
- Partnered with agile squads on platform-level architecture decisions.
- Enforced data traceability and versioning in an ISO 50001-regulated manufacturing environment.

✓ Achievement: Finalist, Petrobras Data Science Hackathon: integrating two open-source projects (BibMon + 3W dataset).

### **SLB – OneSubsea – Digital Transformation Intern | Jan 2023 – May 2024**

- Automated management reporting with Python and SQL, cutting report generation time by 50%.
- Designed and deployed Power BI dashboards for real-time KPI monitoring.
- Supported Data Governance initiatives and data quality frameworks.

✓ Finalist, iUP Inovathon (OTC 2023), led to publication ["Impact of Adopting an Integrated Marketplace for the Oil and Gas Industry on the Dynamics of Green Bonds and Environmental Financial Assets Market"](#) at ROG.e 2024 Conference.

### **Contraktor Tecnologia S/A - Front-End Developer | Jan 2022 – Aug 2022**

- Redesigned and internationalized corporate website using WordPress, JavaScript, React.
- Implemented A/B tests and growth experiments with Google Optimize, boosting conversion by 15%.
- Led SEO and performance optimization initiatives; created promotional videos and banners.

### **Mestres Ninja Internet Ltda - Software Developer | Jul 2017 – Oct 2021**

- Delivered web and e-commerce solutions for clients: built Buzz Editora's platform with payment-gateway integration.
- Designed and implemented RESTful APIs for financial services applications.
- Engaged in innovation programs (Campus Party, Founder Institute) and startup accelerators.

**Honors:** Finalist, 'Geração Empreendedora 2017'; Startup & Makers, Campus Party Brasil 2017; Founder Institute Idea Review, Curitiba 2020.

## **Technical Skills**

**Cloud & DevOps:** Azure (Data Factory, Synapse, Functions, App Services), Docker, Kubernetes (AKS), Terraform, ARM, Azure DevOps, Git, CI/CD, ALM, Azure Key Vault.

**Data & Streaming:** Azure Databricks (PySpark, Spark SQL), Apache Airflow, Kafka/Confluent, Azure Event Hubs, Lambda/Kappa patterns, Data Lake Storage Gen2.

**Databases:** SQL Server, Oracle, Cosmos DB, MongoDB, Azure SQL Database, Relational modeling, NoSQL design.

**Languages:** Python, Scala, PySpark, SQL, JavaScript (React, Angular).

**Low-Code Automation:** Power BI, Power Automate, Power Apps.

**Methodologies:** Agile (Scrum, Kanban), Six Sigma, 8D problem-solving.

### **Certifications & Courses**

- Certified Kubernetes Administrator (*in progress*)
- AZ-104 Microsoft Azure Administrator (*in progress*)
- Advanced Topics in Business Strategy, University of La Verne (Jan 2025)
- Advanced Business English, University of La Verne (Jan 2025)
- Software Testing, UFMG (Mar 2023)
- 8D Problem Solving, FORPRAXIS (Nov 2024)
- Six Sigma White Belt, CSSC (Sep 2024)
- Innovation Management, UFPR (May 2023)
- Quantum Computing for Beginners, UNICAMP (Aug 2022)

### **Languages**

- Portuguese: Native
- English (US): Advanced (B2)

### **Community & Volunteer**

- Active contributor, Petrobras Open-Source 3W Dataset;
- Member, Brazilian Computer Society (SBC) since 2021;
- Mentor, Feira de Profissões – Rio de Janeiro;
- Leader, SLB OneSubsea LGBTQIAP+ Committee (2025)