

Summary

Industrial engineer and software developer with a passion for innovation and research. Recognized with full scholarships from IIE and CAPES, award in operations research and machine learning certification, I have delivered solutions for industry leaders at ESPN, The Home Depot, and Stansberry Research. My work spans cloud architecture, full-stack development, machine learning, and real-time data processing, with impactful projects in sports analytics, supply chain optimization, and financial publishing. I am dedicated to bridging technical innovation with practical applications, and to work with my colleagues to grow and succeed as a team.

Technical Skills

Languages & Frameworks: Python, C#, Java, JavaScript, HTML, CSS, PHP, Kotlin, React, C++, Node.js, .NET, WPF, JavaFX, Bootstrap.

Cloud Platforms: AWS (CloudFront, Load Balancers, Route 53, EC2, ECS, Lambda, S3, RDS), GCP (Airflow, Dataflow, BigQuery, GKE).

Databases & Message Streaming: PostgreSQL, MongoDB, MySQL, Firebird, Redis, RabbitMQ.

Tools & Concepts: Docker, CDNs, Cloud Infrastructure, On-Premise Infrastructure, Real-time Systems, Network Architectures, Data Distribution, Multi-layer Caching, Performance Optimization, Scalability, TensorFlow, Computer Vision, Deep Learning, Sensor Fusion, Path Planning, Robot Controllers, Multimedia Applications, OpenCV, DirectShow, FFMPEG.

Experience

Senior Software Engineer – Technical Lead | Stansberry Research | Nov. 2020 – Feb. 2025

- Architecture and management of cloud infrastructures for financial data processing, newsletter publishing, streaming services, and API integrations.
- Collaboration with executives to align technical solutions with business goals and inform strategic decisions.
- Mentoring of software engineers and promotion of best practices across the team.
- **Technologies:** Python, Java, JavaScript, AWS (CloudFront, Load Balancers, Route 53, EC2, ECS, Lambda, S3, RDS), PostgreSQL, MongoDB, Redis, RabbitMQ, S&P Xpressfeed, Barchart, CoinGecko.

Senior Software Engineer | The Home Depot – American Software Inc. | Nov. 2019 – Oct. 2020

- Development of full-stack applications for supply chain replenishment systems, optimizing workflows and enhancing user experience.
- **Technologies:** Python, Java, JavaScript, Kotlin, React, Node.js, GCP (Airflow, Dataflow, BigQuery, GKE), Teradata.

Project Engineer III | ESPN | Jan. 2017 – May 2019

- Development of applications to integrate with broadcasting equipment and IP/SDI workflows, enhancing live production systems.
- Creation of touchscreen applications and in-house tools that connected with sports APIs, improving TV newsroom production with real-time statistics and features.
- Research in computer vision, developing a live object tracking system for soccer players to deliver real-time positional data.
- Mentoring of analysts and engineers, helping them transition into the development of software for broadcasting applications.
- **Technologies:** C#, Java, Python, PHP, JavaScript, .NET, WPF, JavaFX, OpenCV, TensorFlow, MySQL, Firebird, DirectShow, FFMPEG, TCP/UDP, multimedia streaming protocols.
- *Project Analyst I (Jan. 2016 – Dec. 2016)*
- *Project Engineering Intern (Jan. 2015 – Dec. 2015)*

Technical Lead | Costa & Associates (Self-Employed)

- Engineering of production-grade software with real-time data capabilities, leveraging on-premise servers, CDNs, and multi-layer caching for optimal performance and scalability.
- Design and implementation secure network architectures, integrating custom security measures and data distribution systems across cloud and on-premise environments.
- **Technologies:** Python, JavaScript, AWS (EC2, Lambda, S3), PostgreSQL, MongoDB, Redis, Docker, CDNs, on-premise infrastructure.

Key Projects & Contributions

Architecture Design and Migration | Stansberry Research

- Migration of repositories to more efficient and scalable architectures.
- Automation of deployment processes for containerized clusters, orchestration pipelines, serverless computing, virtual private servers, and networking architectures.
- Design and development of repositories supporting multiple technology stacks with a standardized approach to deployment, testing, and organization.

Financial Data Ingestion and Aggregation | Stansberry Research

- Design and implementation of data ingestion processes for public financial data filings, private APIs, and custom protocols.
- Development and deployment of pipelines for orchestrating job runs.

Alerts for Financial Markets and Publishing | Stansberry Research

- Architecture of real-time alerting system linked to financial data streams and newsletters, delivering notifications via SMS, email, and API.

Multiviewer IP | ESPN

- Multiviewer IP video-based software, making use of multimedia algorithms and libraries.
- Compatible with multiple codecs such as H.264, HEVC, MPEG Audio, S302M.

World Cup Applications | ESPN

- Creation of touchscreen application suite for live television production, containing real-time information of players and statistics, standings, brackets, weather, videos, and soccer field representations for analysis of 2018 World Cup soccer matches.

Inventory and Scheduling Applications | ESPN

- Creation of inventory and scheduling applications for control and management of stocks and services.
- Integrated with different database technologies and identification systems such as QR Code, Barcode and custom-made IDs.

Application of Quantitative Models for Patient Arrivals Forecasting in a General Out-patient Clinic. | The University Center of FEI

- Thesis presenting different statistical methods, moving averages, sine curve regressions, ARIMA, and the application of recursive neural networks for time series studies.
- The case study uses historical data from a General Out-patient Clinic to forecast the arrival of patients and to compare their efficiencies and errors, enabling further discussions in how to better schedule and stock the materials and human resources used by the hospital.
- Awarded first place at INOVA FEI, Industrial Engineering, 2016.

Self-Driving Car System Integration Project | Udacity

- Creation of autonomous car system.
- Traffic lights, translation and rotation variables are taken into consideration, and also the comfort of the passengers inside the car, such as maximum jerk, acceleration and velocity values were applied while implementing the car controls.
- Computer Vision, Deep Learning, Sensor Fusion, Path Planning, Robot Controllers and other technologies and concepts were used.

Education & Certifications

Self-Driving Car Engineer Nanodegree | Udacity | Jan. 2016 – Dec. 2016

- Hands-on experience in Computer Vision, Deep Learning, and Sensor Fusion.

B.S. Industrial Engineering | The University Center of FEI | Jan. 2011 – Dec. 2016

- **Honors:** First place award for thesis on predictive modeling with neural networks and multivariate statistics.

Scholarship Award, Industrial Engineering | Mercer University | Aug. 2013 – Aug. 2014

- **Honors:** IIE and Capes sponsored scholarship for academic excellence in industrial engineering.
- Dean's List.