Lucas Meyer

Reisterstown, 21136 MD | lucas@lucascmeyer.com

Summary

Software Engineer with experience in systems architecture, cloud computing, and machine learning. Development of scalable, high-performance applications and management of infrastructures to improve system performance and results.

Experience

Senior Software Engineer | 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 junior software engineers and promotion of best practices across the team.

Technologies: Python, Java, JavaScript, HTML, PHP. IntelliJ, Pycharm, VSCode, DataGrip, DBeaver. AWS, EC2, ECS, ECR, SES, Lambda, Load Balancers, Target Groups, Route 53, CloudFront, CodePipeline, Data Pipeline, MWAA Airflow, Amazon MQ, RabbitMQ, CloudWatch, CloudTrail, Datadog, S3, RDS, ElastiCache. PostgreSQL, MongoDB, Redis, Elasticsearch. S&P Xpressfeed, Barchart, CoinGecko.

Senior Software Engineer | The Home Depot – American Software Inc. | Nov. 2019 – Nov. 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, AppEngine, GKE. Teradata. TeamCity.

Project Engineer III, Broadcasting | ESPN | Jan. 2015 – 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, HTML. Visual Studio Blend, NetBeans, VSCode. MySQL, Firebird. WPF, Windows Forms, OpenCV, TensorFlow, .NET, JavaFX.

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Co-Founder & Software Engineer | Costa & Associates LLC

- Engineered a production-grade software platform with real-time data capabilities, leveraging on-premise servers, CDNs, and multi-layer caching for optimal performance and scalability.

- Designed and implemented 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.

Technology Project Manager, Intern | Rama Business | May 2014 – September 2014

Education

Self-Driving Car Engineer Nanodegree | December 2017 | Udacity

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

B.S. Industrial Engineering | December 2016 | The University Center of FEI

Honors: First Place Award for Bachelor Thesis on predictive modeling with neural networks.

B.S. Industrial Engineering | September 2014 | Mercer University

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

Skills

Programming Languages: Python, Java, JavaScript, C++, C#, Kotlin, TypeScript, PHP

Frameworks & Libraries: Node.js (JavaScript runtime), .NET, Flask, CherryPy, React, Spring, JavaFX, WPF, OpenCV, TensorFlow

Cloud & DevOps: AWS, GCP, On-premise

Data & Streaming: RabbitMQ, Redis, PostgreSQL, MongoDB, Elasticsearch, MySQL, Firebird

Architectural & Engineering Expertise: Cloud Architecture, Scalable System Design, Data Pipelines, Broadcast Engineering, Industrial Engineering

Languages: Portuguese (Fluent), English (Fluent), Spanish (Fluent), French (Intermediate)

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Projects

Alerts for Financial Markets and Publishing

Architecture of real-time alerting system linked to financial data streams and newsletters, delivering notifications via SMS, email, and API. Utilized RabbitMQ, multi-threaded Python, MongoDB, PostgreSQL, ElasticSearch and Redis to enhance responsiveness and streamline data flow.

Application of Quantitative Models for Patient Arrivals Forecasting in a General Out-patient Clinic.

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.

Architecture Design and Migration

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. AWS services utilized include EC2, ECS, ECR, Lambda, Load Balancers, Target Groups, Code Pipelines.

Financial Data Ingestion and Aggregation

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, leveraging Python multi-threading, MongoDB, PostgreSQL, Airflow, and AWS services.

Multimedia Conversion System

Creation of multimedia conversion application used for automatic schedule and conversion of videos and audios. The suite is able to work with multiple codecs such as H264, DVCPRO HD, AAC, MPEG 1 Audio, etc, being used for multimedia workflows in-house. Making use of C#, .NET, TCP/UDP, PHP, CSS, HTML and multimedia algorithms and libraries.

Open Source Technical Analysis Software

Licensed under GNU GPLv3, real-time stocks data, possibility to analyze multiple charts and use of annotations and indicators for Technical Analysis. Creation of custom scripts for indicators and robot trading. Making use of Java, NetBeans, RESTful APIs and markup languages.

Self-Driving Car System Integration Project

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

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Vision, Deep Learning, Sensor Fusion, Path Planning, Robot Controllers and other technologies and concepts were used.

Social Marketplace Platform

Architecture and development of application designed to empower users by providing a multifaceted platform for sharing images, videos, text, and products for sale. It enables pay-per-view content, integrates a robust chatting application, and incorporates advanced streaming technologies alongside a secure payment system. Making use of Python, Javascript, HTML, PostgreSQL, MongoDB, Redis, Docker and third-party integrations.

2018 World Cup Touchscreen Application

Creation of touchscreen application suite for live television production, containing realtime information of players and statistics, standings, brackets, weather, videos, and soccer field representations for analysis of 2018 World Cup soccer matches. Making use of C# .NET, markup languages, SQL, TCP/IP and Photoshop.