Raoul Steve Larios

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Summary

Software Engineer with expertise in backend and cloud systems. Skilled in building scalable, production-ready software using Java, Python, and AWS. Experienced in automating data workflows, integrating APIs, and deploying applications serving 1,000+ users. With experience spanning backend APIs, cloud infrastructure, IT, and applied ML.

Technical Skills

Languages: Java, Python, C++, SQL
Frameworks: React, Node.js, Flask, Spring, Django, Angular
Tools: Git, Docker, AWS, Linux, Jenkins, Unity, Visual Studio Code, JetBrains IntelliJ
Concepts: OOP, REST APIs, Distributed Systems, Cloud Computing, Hadoop, Spark, SaaS, Agile, System Design

Experience

Fiverr October 2016 – Present
Freelance Software Engineer *Remote*

- Designed and implemented automation tools and full-stack solutions for clients across data, web, and API domains.
- Built a full-stack scraping platform for a retail client (10,000+ products per provider), automating data extraction and CSV generation for ROI optimization.
- Developed and deployed scalable Discord bots with Java + Discord API, serving 1,000+ users across 5 communities using CI/CD pipelines on Linux VPS.

Technical Projects

Energy-Efficient Computing Research | *Java, Cloudsim, Optimization, Scalability* August 2024 – December 2024

- Lead a team of 4 to design experiments, analyze results, refine methodologies, and conduct research on optimizing machine learning workloads in data centers through predictive models and reinforcement learning techniques.
- Investigated energy consumption metrics to develop smart scheduling and resource allocation strategies.
- Proposed a multi-tiered orchestration system integrating energy data and Green SLAs to balance energy efficiency, carbon footprint, and performance objectives.

Cloud Computing Applications | *AWS, Python, Java, Lambda, EC2, Docker, Cloud, DevOps* January 2024 – December 2024

- Engineered scalable cloud-based applications using core AWS services including Lambda, RDS, S3, ElastiCache, and Lex, with hands-on deployment and configuration through the AWS Free Tier.
- Developed and deployed distributed computing solutions using Hadoop and Apache Spark (MapReduce, Spark SQL, GraphFrames) for big data processing, transformation, and analysis.
- Built and tested real-time data pipelines with Apache Storm and Flux, applying streaming architecture patterns like Lambda for low-latency processing.
- Containerized applications with Docker and arranged deployments using Kubernetes and ECS, gaining practical experience in cloud-native infrastructure and DevOps workflows.

LTE Self-Driving Car with AWS IoT | *AWS IoT, Python, Lambda, Firehose* August 2023 – December 2023

- Developed a cloud-based infrastructure using AWS IoT to simulate and manage 120,000 vehicles.
- Implemented real-time CO2 emissions monitoring with AWS Lambda functions and MQTT protocols.
- Configured IoT Core, GreenGrass, and Firehose to process data and visualize trends using AWS Sagemaker.
- Enhanced troubleshooting and scalability with automated cloud resource management.

Twitter Sentiment Classification | *Python, BERT, NLP* January 2023 – June 2023

- Led a team to design and implement a sentiment classification model using BERT for tweets.
- Preprocessed and tokenized datasets, fine-tuning a BERT-base-uncased model for multi-class classification.
- Achieved competitive accuracy through hyperparameter optimization and data augmentation.
- Provided a leaderboard system for students to test and improve models in a competitive environment.

Other notable projects: Feature Selection, Smart Environmental Clock, Android App Development, SmartTrash, Traffic Light, 8-Puzzle Solver

Education

University of Illinois Urbana-Champaign Champaign, IL
Master of Science in Computer Science *August 2022 – December 2024*
GPA: 3.9 -Notable Coursework: Software Engineering, Internet of Things, Cloud Computing, Computational Photography

University of California Riverside Riverside, CA
Bachelor of Science in Computer Science *September 2019 – June 2021*
GPA: 3.5 - Notable Coursework: Data Structures & Algorithms, Database Management, AI Systems, Embedded Systems