Luke Sirand

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Summary

Software engineer with hands-on experience in AI integration, cloud computing, and ML development. Proven track record of building data pipelines, optimizing classification speeds, scaling ML workflows, and building distributed backend systems and infrastructure. Passionate about security, automation, and innovative problem-solving.

Work Experience

OpenText   January 2025 - Present
Senior Software Engineer   *San Diego (Remote)*
- Maximize threat intelligence coverage by delivering ML pipeline serving real-time feature computations and model classifications (hundreds of req/min) via RESTful API (Flask, ECS, ALB, Redis, MySQL).
- Enrich content classification and model training data by building a distributed ETL pipeline ingesting millions of IP address insights daily using Apache Airflow, Redis, Celery Executors, and ECS.
- Build C++ DLP library using LibTorch and SentencePiece for the vectorization, tokenization, and classification of web traffic, in close collaboration with ML teams.
- Achieve 50% ML classification speed gains by optimizing feature vectorization and tokenization logic.
- Create .NET 8 CLI tools for managing model lifecycle and multi-arch deployments.

OpenText   April 2022 - January 2025
Software Engineer II   *San Diego (Remote)*
- Lead security, CloudWatch, and CI/CD efforts, achieving 100% new and 75% legacy product compliance.
- Enable Python/C++ interoperability using pybind11 to improve ML workflows and team productivity.
- Delivered POC for ML training data labeling using byte manipulation, checksum analysis, and mitmproxy.
- Designed system for collecting, normalizing, and publishing icons for 10,000+ applications daily; automated refresh pipeline using OpenCV, histogram comparisons, and scrapers.

OpenText   July 2021 - April 2022
Software Engineer I   *San Diego (Remote)*
- Quickly ship real time threat intelligence updates to customers via optimizing table indexes and leveraging CTEs, window functions, and aggregate functions in complex SQL queries.
- Expanded content classification coverage by 500% through automated scraping framework.
- Reduced cloud infrastructure costs by improving content classification build generators and collection tools handling millions of URLs/IPs.

OpenText   September 2020 - June 2021
Software Developer Intern   *San Diego (Remote)*
- Developed test automation suite with Selenium, PyTest, and Allure for CASB platform.

UCSD Jacobs School of Engineering   December 2020 - June 2021
Instructional Assistant   *San Diego*
- Ran labs covering industry technologies and built Discord bot (Node.js, Heroku) for detecting academic integrity violations.

Education

University of California, San Diego   September 2017 - June 2021
B.S. in Mathematics and Computer Science   *San Diego, CA*
- Provost Honors recipient. NCAA Men's Epee athlete and Junior Olympics top 64 finisher.

Projects

Personal Project - DupeLs (github.com/srdlj/dupels)
- Created a Rust CLI tool to detect duplicate files via checksum analysis in nested directories.

Skills

Languages: Python, C#, JavaScript, C++, Rust, SQL

Frameworks/Tools: .NET, Flask, Node.js, React, Selenium, PyTorch, mitmproxy, OpenCV, Jupyter, Git, Apache Airflow, Vite, Chrome Extensions API, Mozilla Add-ons API, ElasticSearch

Cloud & DevOps: AWS (EC2, ECS, Lambda, RDS, S3, CloudFront, OpenSearch, CloudWatch, SQS), Docker, Redis, CI/CD, GitLab, Kubernetes, GitHub, T-Pot

Databases: MySQL, DynamoDB

Other: REST APIs, Unit/Integration Testing, Linux (Ubuntu, Debian, Alpine), Threat Modeling, SCA, DAST, Container Security, ETL Pipelines, Batch Processing Systems