

# SEAN LUKA GIRGIS

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**Enterprise ML Engineer & Time-Series Specialist** with 20+ years of technical leadership. Specialist in deploying high-performance **Predictive Capacity Pipelines** for 10,000+ servers. Expert at bypassing the Python GIL to achieve **10x forecasting throughput**.

## CORE ML ENGINEERING PILLARS

### Predictive Engineering

- **Advanced Forecasting:** Prophet, LSTM, XGBoost.
- **High-Performance Data:** Feature extraction from Parquet/Spark.
- **Visualization:** Interactive Streamlit dashboards.

### MLOps & Strategy

- **Model Competition:** Automated champion/challenger selection.
- **Confidence Modeling:** "High Trust" 90-day utilization logic.
- **Domain Expertise:** BMC TrueSight & AppDynamics synthesis.

## FLAGSHIP PROJECT: HORIZONSCALE AI

### Predictive Utilization Pipeline (2,000+ Nodes)

- **Turbo Prophet:** Parallel execution framework reducing cycles by **90%**
- **High-Fidelity Training:** 3-year historical synthetic foundation.
- **Interactive Dashboard:** 6-month outlooks vs. historical baselines.

Python

Prophet

Streamlit

Spark

Multiprocessing

## PROFESSIONAL EXPERIENCE

### Capacity and Performance Consultant (ML & Strategy)

2017 – Dec 2025

CITI

- Architected big-data forecasting for 10,000+ global servers.
- Automated regional forecasting, reducing manual analysis by **85%**
- Used BMC TrueSight and AppDynamics for proactive outage detection.

### Performance Engineer

2017 – 2017

G6 Hospitality LLC & HCL/ENTERGY

- Managed end-to-end monitoring for Brand.com using Dynatrace AppMon and Synthetics.
- Led the "FAST" project, data mining user performance metrics to optimize critical money-generating systems.

## **Senior Consultant (CA APM Consulting)**

**2012 – 2017**

*CA Technologies & TIAA-CREF*

- Led enterprise CA APM implementations and upgrades (v9.1 → v10.1) for financial clients, managing 4,000–6,000 agents across multi-cluster environments.
- Served as CA APM SME, handling daily operations, cluster maintenance, agent/Power Pack rollouts, and performance bottleneck resolution in J2EE/.NET stacks.
- Designed custom dashboards, alerts, reports, and Perl/Ksh data-extraction scripts to deliver actionable insights for business-critical monitoring.
- Provided architectural sizing recommendations, Golden Image creation, client training, and technical team leadership for APM deployments.
- Optimized large-scale CA Wily Introscope installations, resolving complex issues in high-stakes financial services environments.

## **EXPERIENCE HISTORY**

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### **AT&T**

**2010 – 2011**

*Senior performance Test Engineer*

### **Sabre**

**2008 – 2012**

*Senior Developer - C++, Java, Backend Architecture*

### **Software Engineer**

**2000 – 2008**

*Full-Stack Development*

## **EDUCATION & CERTIFICATIONS**

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### **Post-Graduate Diploma, Computer Science**

*Humber College*

### **Bachelor of Science, Engineering**

*Zagazig University*