

Eamonn L. Nugent

Charlotte, NC

[linkedin.com/in/eamonn-nugent/](https://www.linkedin.com/in/eamonn-nugent/)
55.dev

Experience

Systems Engineer, Gensyn

Remote (CA)

May 2025 - Present

The network for machine intelligence

Develop serverless hosted environment for Reproducible Execution Environment (REE)

- Develop work distribution for inbound inference requests, placing tasks onto GPUs for execution
- Design environment to defend against RCE, container escapes, and other attack vectors
- Create and implement observability plan for ensuring container uptime

Advance security and observability posture company-wide

- Create and manage Elastic Cloud deployment for SIEM logging
- Connect Google Cloud Platform audit logs to SIEM
- Engineer towards company-wide deployment of Elastic Agent for Mobile Device Management

Tech lead for CodeAssist, a private self-training AI programming assistant

- Lead team of 3 core and 4 supporting engineers to develop product from the ground up
- Design telemetry pipeline for collecting user statistics
- Orchestrate services executing on user machines from a central management codebase
- Interface with Smart Contract resources to publish events onto custom chain
- Create public-facing communications for initial release and ongoing support

Deploy physical continuous-integration hardware in a tier-3+ datacenter

- Spec-out and purchase servers, networking gear, and supporting infrastructure for deployment
- Rack-and-stack on-site gear
- Design & deploy network topology
- Implement best practices for security, device management, and reliability

Senior Software Engineer, Cloud, Lambda

Remote (CA)

Apr 2022 - May 2025

Cloud service provider catering to the machine learning community, with the best prices industry-wide.

Tech lead for new, distributed serverless inference platform

- Led technical decisions for distributed serverless inference platform
- Implemented key underlying resources and technologies to enable rapid horizontal and vertical scaling
- Developed pipeline for transitioning from open-source models and their custom deployments to a standardized, repeatable mechanism to release models to the public
- Performed infrastructure provisioning and scale-up
- Engineered user-facing API service for dispatching request to and collecting result from compute layer
- Supported billions of tokens processed per day

Designed, architected, and implemented reserved cloud offering

- Created a repeatable automation pipeline to deploy capacity for several multi-million dollar deals, enabling the sales engineering team to bring a new cluster online within hours, not days
- Directly resulted in tens of millions of dollars in revenue after product launch

Improved virtual machine orchestration platform and architected its future revisions

- Instrumental in deploying capacity to increase bottom-line revenue by 150x
- Drove major changes to internal VM orchestration platform to handle multiple regions with multiple cloud service providers in the same codebase
- Designed abstraction layers and interfaces involved in rewrite to allow multiple underlying implementations to accomplish the same business goals
- Enabled support team by creating an easily searched audit log, allowing data gathering on historical trends and identify failing hardware

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- Orchestration software manages 1000+ hypervisors, with tens of thousands of virtual machines

Cloud Architect, MachineSP

Remote (NJ)

Aug 2020 - Nov 2021

Leading US mortgage data analytics platform, analyzing loan-level data for entire US mortgage market, offering fast analytical tools to major investment banks and asset managers

Manage Cyber Security best practices & implementation

- Implement BeyondCorp style authentication and authorization platform
- Implement disaster recovery plans and ensure business continuity in the event of a ransomware attack
- Create and maintain security rules to restrict access to production systems

Design & Manage AWS infrastructure

- Automate deployment of new database clusters
- Deploy autoscaled 32-node cluster, including automated provisioning & data retrieval per-node
- Handle sharding of >4TB of mortgage analytics data to be distributed to and queried by worker nodes
- Maintain Amazon Web Services account, including ensuring proper development vs production account split
- Design & implement new infrastructure and database architecture to allow querying of terabytes of financial data

Develop/maintain analytics platform

- Completed 3-week turnaround time for a financial report analysis software, including infrastructure, backend services, and integration with a frontend UI
- Maintain industry-leading analytics turnaround times of approx. 15 seconds for ~1M rows of financial data, including retrieval time from government agencies' storages
- Utilize Redis message queues to orchestrate the half-dozen separate services for the report generation software
- Develop clustered analytics work distribution algorithm & communication protocol from scratch
- Work with Python & JavaScript's SocketIO libraries to facilitate easy communication between master, workers, and browser clients

Systems Administrator, Positive Control

Remote (DE)

April 2017 - Feb 2020

Online gaming network to interconnect flight simulators and virtual air traffic controllers into a single hyper-realistic world, including real-world procedures, phraseology, and system design

Senior Developer

- Built live-replay functionality from scratch, allowing users to view their past actions in real-time with up to fifteen datapoints stored per second
- Wrote 10+ individual data APIs to access network statistics, flight data, weather, airport configuration, and procedures
- Designed an OAuth-based single-sign-on application from scratch for use across the network's services
- Implement additional services as needed in Python, deploying to Kubernetes

Systems Administrator

- Hired to redesign and rebuild from scratch the website running the New York division of a simulation network
- Promoted from Senior Developer to manage all infrastructure on a global network presence, including web, application, and software PoPs
- Three thousand users signed up for product pre-release in less than 6 months, averaging ~50 registrations per day, currently at ~15,000 registered users
- Configured and promoted use of container-based workloads through Kubernetes, including fully automated source-to-production deployments
- Managed connection with FAA servers, receiving ~100GB/day of real-world flight data

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- Managed Google Cloud Platform presence, with approx. 50 servers plus containerized applications