Eamonn L. Nugent

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Certifications

- AWS Certified Solutions Architect - Associate

Experience

Senior Software Engineer, Cloud, Lambda   Remote (CA)   Apr 2022 - Present
Full-time position
Cloud service provider catering to the machine learning community, with the best prices industry-wide.

Designed, architected, and implemented reserved cloud offering
- Created a repeatable automation pipeline for deploying multi-million dollar deployments, enabling the sales engineering team to bring a new cluster online within hours, not days
- Wrote Terraform modules to reduce workload for repeatable tasks
- Built continuous delivery pipeline using Terraform Cloud
- Directly resulted in tens of millions of dollars in revenue after product launch

Improved virtual machine orchestration platform and architected its future revisions
- 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
- Orchestration software manages 500+ hypervisors, with thousands of virtual machines

Cloud Architect, MachineSP   Remote (NJ)   Aug 2020 - Nov 2021
Full-time position
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. 1.2 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*
Full-time position
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
- Managed Google Cloud Platform presence, with approx. 50 servers plus containerized applications

Software Developer, Salusion   New York, NY   Feb 2020 - Aug 2020
Contractor position
An HSA administrator with automated tax deductions for medical expenses, just with a photo of your receipt

Software Engineer
- Designed & maintained integration between core platform and partner banks to manage health savings accounts (HSAs)
- Rewrote existing cryptography and API libraries as needed to assist with external platform integration
- Worked with CTO on internal processes to ensure compatibility with outside platforms
- Occasionally assisted with additional projects, such as analytics tracking, cloud identity access management, and online presence review

CTO, demilleTech   *Stamford, CT*   *May 2017 - Feb 2020*
Startup co-founder
Designed from scratch a cloud and local hardware and software infrastructure to support ongoing software development
- Managed additional infrastructure on Amazon Web Services & Google Cloud Platform
- Built a custom blog platform from scratch, centered around online communities
- Hired a frontend engineer to build UI/UX
- Designed & implemented entire backend API, statistics calculation, link shortening, and other necessary features and infrastructure