Jonathan Eunice

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Objective

Challenging "full stack" development, DevOps, and IT leadership role—one with the leverage to advance "how things are done" and the opportunity to engage, mentor, and accelerate the progress of others.

Employment

App Stack and DevOps Manager. *Mevron, Inc. (2019–).* Engineering team leader, hands-on back-end developer, DevOps, and business developer for ride-sharing startup focused on global markets.

DevOps Manager. *CAMP Systems International (2018–2019).* Helped modernize complex, legacy-infused application suite, delivery platform, and operational processes for premier SaaS provider to the business aviation market. Coordinated across international DevOps, Q/A, DBA, infrastructure, and numerous development teams. Took point on IT security and audit efforts such as modernizing security policy, performing security patching, achieving Privacy Shield certification, answering SOX and other audits, and implementing a WAF. Upgraded core tools; improved deployment procedures and CI pipeline; revised monitoring and alerting; reworked inventory; ran DR drills and increased disaster preparedness; did production support; and generally worked both high and low to "get shipshape" and "make the trains run on time."

Consulting Developer, Operator, and Troubleshooter. *Independent (2011–2018, 2019–).* Developed, optimized, operated, and occasionally rescued scores of apps, services, and projects. Active open source contributor. DevOps speaker and educator. Five-star mentor and on-demand expert.

Founder, CEO, and Principal IT Advisor. *Illuminata, Inc. (1993–2014).* Retained by world's IT leaders (e.g. AMD, CA, Cisco, Dell, EMC, HP, IBM, Intel, Microsoft, Oracle, Red Hat, Samsung, Sun, and VMware) as well as startups, investors, industry associations, enterprises, and government agencies. Evaluated technologies; advised clients on products, trends, requirements, and connecting with customer needs; expert witness in legal, procurement, and benchmarking disputes; trouble-shooter; internal developer; author and industry speaker. Expert on scalability, high-availability, modularity, data centers, scaling (up, out, and in), virtualization and containers, Unix, Linux, open source, web services, rich internet apps, clusters, cloud, and DevOps. One of the most quoted, respected, and consulted analysts in the world.

Research Manager. *D.H. Brown Associates (1988–1993).* Recruited out of grad school to analyze emerging technologies & opportunities for buy-side financial investors and industrial clients. Early expert on object-oriented systems, modern NoSQL databases, RISC and post-RISC CPUs, 3D solid modeling, graphics accelerators, industrial PIM, Unix, client/server, and distributed computing. Author, consultant, and public speaker in the U.S. and abroad.

Education

On the Job (1982–) Constant study of IT (CPUs to clouds), data (DBMS, ETL, data science, and "unstructured" documents), workloads (web, OLTP, batch, HPTC, HFT, analytics), tools (languages, middleware, frameworks, and APIs), processes (open source, SOA, agile, CI/CD, business), manageability, economics, culture, UX, DevOps, and fifty-three other areas.

University of Pittsburgh (1987–1988, 1991) *Computer Science* Ph.D. track. Programming languages, compilers, visual languages, computational theory, machine learning, and operating systems. Recruited by Wall Street firm before degree.

Florida Atlantic University (1983–1986) *BA Mathematics and Computer Science.* Combinatorics, graph theory, numerical analysis, computer graphics, data structures and algorithms, compilers, operating systems, and expert systems. *BA Philosophy.* Logic, rhetoric, underpinnings of science and language, ethics, aesthetics, and the history of Western thought.

Analyst • **Anthropologist** • **Architect** • **Developer** • **Operator** • **Mentor** • **Polymath** • **Speaker** • **Smokejumper**

Jonathan Eunice:
Selected Projects

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Rescue and Successful Operation of firstnight.org

First Night. Called in to fix "We're down!! HELP!!!" situation a few days before First Night, a festival that brings over a million people to Boston for New Year's Eve. Worked on emergency save-the-patient basis to transfer operation to scalable cloud resources and iteratively optimize the site and its services (e.g. mapping, Twitter feed, live updates) to regain availability. In second and third years, worked in non-emergency mode to properly pre-optimize the site, then operate in a DevOps/live scaling/active monitoring mode. Site operated economically (First Night a nonprofit), under heavy load, without a single moment of downtime. AWS (EC2, S3, CloudFront, Route 53, CloudWatch, SNS), Linux, Bash, Mercurial, WordPress, MySQL, PHP, Python, JavaScript, FireBug, YSlow, automation and orchestration glue

DevOps and Application Stack

WayUp. Called in to improve the availability, performance, latency, and other operational aspects of the WayUp application stack and back end; to built substantial testing, monitoring, CI/CD and DevOps practices; and to help mature processes, advise on scaling up application and operational infrastructure, and mentor junior developers. Heroku, AWS, Git, Github, Circle CI, Logentries, Papertrail, Librato, New Relic APM, Python, Django, PostgreSQL, Celery, REDIS, JavaScript, DevOps glue scripting

ETL for Least Friendly CMS Ever

D.H. Brown Associates and IBM. Built content-ingestion/ETL front-end for IBM COMP database, the most persnickety CMS ever. Working with COMP extremely frustrating for users and inefficient given its Byzantine rules of input formatting, including pre-declaration of references, character set restrictions, rigid indentation, and inflexible data ordering requirements. Content submissions were frequently rejected, often for technical nits not readily comprehensible to, nor easily fixed by, most content creators. Resolved this human factors FAIL with a preflight tool that eliminated ~95% of submission effort. It fixed many formatting issues automatically, clearly flagging the remaining corner cases for human rework. Substantial UX, time-to-market, and economic wins. Perl, IBM COMP

Data Visualization for Federal Agency Grants

Built network explorer visualization coupled with Topic Modeling backend to help federal agencies understand and cross-correlate far-flung R&D projects and spending. D3.js, JavaScript, Python, Jupyter, NumPy, JSON, CSV, SVG

Telephony Services Integration

Explored feasibility of mapping custom code from one bespoke telephony API to another vendor's environment and API. Studied API verbs, data formats, semantics, and security. Raised red flags on feasibility of real-time notification and deficient security of proposed new vendor. Web services, REST, JSON, CSV, Python

Medical Display System

Developed several generations of upgrades to an existing medical outcomes display. Collaborated with designer. Simplified existing code and added a half-dozen major features. Major time-to-market contribution. JavaScript, JSON, D3.js, SVG, HTML, CSS

Political Sentiment Mapping

Data-cleansed and geo-coded 1M+ tweets surrounding a political announcement. Built 60fps animation engine to display tweets on a world or national map. Embedded map, animations, and play controls into project Web page. Major time-to-market contribution; completed on *rush* basis. Python, Jupyter, REST, cloud servers, Pandas, JavaScript, CSV, JSON, D3.js, SVG, HTML, CSS

Automated Publishing Workflow

Illuminata, Inc. Thorough automation of production publishing workflow. Ingested numerous formats (Microsoft Word, HTML, ODF). Automatically imposed corporate document style requirements. Auto-published to multiple formats (HTML and PDF). Required double-backflip-with-twist data transformations and integrations, some borderline-impossible given available APIs. Transformations rule-based and extensible. Eliminated thick run book and numerous sticky notes; accelerated process by days. Microsoft Word, Microsoft Office formats, Open Document Format, Open/LibreOffice, X/HTML, XML, PDF, Perl, Java, Python, UNO, Tk, MySQL, REST, AWS

Visualization Code Review

Asked to review a data-intensive visualization system. Examined code structure, quality, and execution speed. Evaluated possible data-fetch and rendering optimizations. Confirmed current design and implementation. AngularJS, JavaScript, D3.js, SVG

Parallel API Engine

Developed parallel engine to efficiently make 100K–10M inquiries against a service provider that rate-limits API calls to hundreds/hour. Collapsed what could have been months or years of data collection into days. Involved concurrency, adaptive rate optimization, cross-worker coordination, checkpointing and process recovery, scalable credential management, a CLI interface, and Excel report generation. Python, Pandas, REST APIs, JSON, CSV, Excel

Document Generator

Reads YAML-format data and automatically generates the structured, nicely human-formatted document you're now reading. Takes Unicode characters and embedded formatting in stride, rendering to a choice of Web, Word, or PDF output. Python, YAML, HTML5, CSS, Microsoft Word, PDF

Miscellaneous

Extensions to Unix kernel (C). Multi-threaded RPC server (Solaris, C). AJAX Markdown editor (Python, JS, jQuery, Flask). PDF annotator (Java, PDF, iText). varied

GitHub	>100 Git repositories owned or contributed to https://github.com/jonathaneunice
Bitbucket	Dozens of Mercurial repositories (and a few Git) https://bitbucket.org/jeunice
Travis CI	Numerous continuously-integrated open source projects https://travis-ci.org/jonathaneunice
stackoverflow	11.3k points; top 2% in 2018 and 2019; top 4% overall http://stackoverflow.com/users/240490/jonathan-eunice
SWEngineering	8.4k points; top 3% overall http://softwareengineering.stackexchange.com/users/55314/jonathan-eunice
Python	Contributor to Python core (CPython). Numerous published modules. E.g.: https://pypi.org/project/intspan/ https://pypi.org/project/options/ https://pypi.org/project/textdata/
codementor	https://www.codementor.io/jonathaneunice 5-star mentor; 500+ successful engagements; hundreds of glowing reviews