

Ry4an Brase, Software Developer / EMT

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Builder of great teams and software. Relentless attention to detail throughout the software development life cycle. Keen focus on process, tooling, team dynamics, and measurable outcomes. 20+ years experience in startups and large organizations. Comfortable as an individual contributor or a team leader.

Work

Site Reliability Engineer, Woven by Toyota, 2024 - Present, Ann Arbor, MI

[Woven](#) is helping Toyota to build software defined vehicles, and I'm helping to make the systems that make that possible.

Site Reliability Engineer / Manager, Google, 2019 - 2024, Pittsburgh, PA

Google's mission is to organize the world's information and make it universally accessible and useful. SRE focuses on the implicit "always" in that mission.

- Oversaw the creation of a new sixteen person SRE team in Pittsburgh owning operational availability for the core Search Ads platform
- Managed migration from dedicated hardware to shared infrastructure for Search Ads serving
- Collaborated closely with sibling teams in Dublin, owning cross-site joint operations

Engineering Manager / Principal Engineer, Duo Security, 2016 - 2019, Ann Arbor, MI

[Duo](#), a Cisco business unit, provides human-friendly security for education, tech companies and an ever increasing swath of enterprise.

- Partnered with Corporate Security to design and implement a robust production compliance and security regime
- Shaped weekly, quarterly, and yearly operations goals in concert with engineering, product, and customer success
- Volunteered to help re-work engineering onboarding and training for new hires and engineers gaining elevated access
- Responsible for identity and access management of expansive AWS footprint including EC2, RDS, ElastiCache, and Elastic Search resources
- Managed an operations team with mixed remote/local, early-career/experienced, and new-hire/long-tenure direct reports
- Participated in regular on-call, with emphasis on continuous improvement and monitoring
- Dove into a complex code base and environment and contributed significant efficiency, stability, and repeatability improvements

VP of Engineering, DramaFever, 2012 - 2016, New York, NY/Philly, PA

DramaFever, a Warner Brothers company, develops and customizes a streaming video platform powering many popular video sites.

- Managed a team of 40 engineers, with responsibility for mentoring, roadmap, procedures, and interactions with product teams and executives
- Developed customer facing and backend features on a Django + JS stack
- Increased search efficiency by implementing Swifttype for in-site search and autocomplete
- Built video analytics system with millions of data points per day analyzed using Amazon DynamoDB, Elastic Map Reduce (Hadoop / Hive), and Redshift cutting reporting time from days to minutes

- Instituted processes and tooling with GitHub, standard branching practices, continuous integration (Jenkins), and code review
- Increased monitoring with New Relic and Graphite

Developer, 8thBridge, 2011 - 2012, Minneapolis, MN and remote

8thBridge, since acquired by Fluent, pioneered e-commerce within social media sites.

- Developed and debugged software for high-volume, high-reliability transaction processing with highly variable input and data store requirements
- Conducting code reviews for security and correctness using GitHub and JIRA/Crucible
- Helping to manage large Amazon EC2 deployments using Chef for automation and Jenkins for builds and deploys
- Using NewRelic, Cacti, Graphite, Splunk, Snort, Pingdom, Akamai, Cloud Front, PagerDuty, and BrowserMob to ensure always-on availability
- Primary point of contact for PCI-DSS certification -- one of the first on Amazon Web Services / Elastic Computing Cloud (AWS-EC2)

Developer, Minnesota Supercomputing Institute, 2010 - 2011, Minneapolis, MN

- Work with bioinformatics, genomics, and physical science investigators at the University of Minnesota to apply massively parallel computing resources in the furtherance of their research
- Modify and consult on projects in Java, Python, Perl
- Designed and deployed University-wide Galaxy bioinformatics framework offering

Co-Founder and Lead Technologist, Swarmcast, Inc., 2002 - 2010, Minneapolis, MN

Swarmcast invented and commercialized modern segmented video streaming.

- Built a team of 15 engineers from the ground up: set their goals, selected their tools, crafted their environment, defined their procedures, and oversaw quality for multiple public launches
- Reliably designed and delivered customer-facing, groundbreaking, HTTP-based, live video delivery software, both client and server systems, on time and under budget
- Personally authored core pieces of multiple server-side and client-side products licensed by Major League Baseball, Siemens, Comcast, and Roku
- Oversaw professional services groups in North America, Europe, and Asia. Tasks included contracts, project scheduling, resource allocation, and customer relations including international travel
- Managed the patent pipeline, yielding 6 fully granted in the US and internationally

Skills

Operations/Infrastructure

- Measured operations impact of process and infrastructure changes over years to tune human and systems impact
- Operated a large Linux fleets with diverse workloads and fully-described configurations using puppet, ansible, and chef in AWS and on-prem
- Setup and handled developer training for source control, bug tracking, continuous integration, and automated deployment systems
- Actively fostered a culture of documentation inside and alongside code using wikis, generated documentation, task tracking, and bug tracking
- Aggregated and authored accurate, insightful status reporting to internal and external development customers

Software Development

- Expert-level development in Python with emphasis on network programming, particularly HTTP
- Track record of solid design and on-time delivery of highly maintainable code
- Debugging skills using network protocol analyzers, debuggers, and profilers
- Strong emphasis on mentoring through code review and one on one coaching
- Contributed to many open source projects including: Bugzilla, Mercurial, Chef (newrelic cookbook), Galaxy, dircproxy, blohg and a CPAN module
- Codes in: Python, Java, Perl, Scala, C, C++, JavaScript, and bash
- Tools: Mercurial, git/GitHub, Chef, Docker, Jira, Bugzilla, Jenkins, Apache, Varnish, HAProxy, Wireshark, PostgreSQL, MySQL, Ansible, Puppet, Hadoop, Hive, Redshift, and etc.
- Platforms: Linux, UNIX, Amazon Web Services, OS X, Google App Engine

Software Development Management

- When managing teams of skilled software developers, strikes the right balance between providing not enough guidance or too much control, and helps them to navigate the re-code vs. re-use vs. buy decision point
- Led multiple successful iterations of customer requirements gathering, design, development, and delivery while working solo, on a team, and as a team lead
- Responsible for the creation and management of successful product teams, both local and remote

Patents, Writing, Projects, and Links

- This [Resume: Text, PDF, HTML, Making Of](#) (You have revision 8cf4e3414dca, updated 2024-08-13)
- Patents (bought by Google): [7979570](#): Live Media Delivery Over a Packet-Based Computer Network, [8543720](#): Dynamic Bit Rate Scaling, [8635360](#): Media Playback Point Seeking Using Data Range Requests, [8150992](#): Dynamic Media Bit Rates Based On Enterprise Data Transfer Policies, [7788398](#): Media Player Plug-in Installation Techniques
- Projects: Are [Blogged](#) and at [GitHub](#). Contributed to Mercurial, Jetty, Bugzilla, Galaxy, dircproxy, blohg, and assorted open source projects

School

University of Minnesota, Institute of Technology, 1995 - 2000

B.S. Computer Science

Huron Valley Ambulance Center for EMS Education, 2024

Emergency Medical Technician (NREMT EMS ID: 0648-5617-3777)