Contact

- http://ranton.org/resume
- https://www.linkedin.com/in/ranton/

Summary

I am a technical leader with an entrepreneurial spirit who loves to build things. My recent work has focused on building, scaling, and reliably operating large distributed systems.

I am passionate about deep learning, computer vision, natural language processing, and computer graphics algorithms.

Key Qualifications

- Experienced technical leader, both as principal/staff software engineer and engineering manager.
- 9+ years experience managing others.
- 25+ years of software development experience.
- Led successful software projects at Amazon, Google, and small companies.
- Mentoring, coaching, and teaching others throughout my career.
- Experienced at driving large cross-team engineering efforts.

Skills

- Distributed systems, cloud computing, networking, and scalability
- Site Reliability Engineering, DevOps, Test Driven Development, and CI/CD
- Machine Learning, Deep Learning, and Computer Vision
- Computer graphics, image processing, and rendering
- C++, Python, Swift, Go, JavaScript, Java, Kotlin.
- Amazon Web Services, Linux, Kubernetes, Docker
- NumPy, scikit-learn, PyTorch, spaCy
- Strong written and verbal communication skills, experienced presenter.
- Coordinating between product, engineering, science, and UX teams.
- Working with customers and problem-solving on their behalf.

Principal Engineer, Snowflake, Bellevue,WA Apr 2023 - Present

Recently joined Snowflake on the Streamlit team.

- I have been focused primarily on infrastructure and features for the Streamlit Community Cloud
- Recently I am also working on Snowflake Notebooks.

Principal Software Development Engineer, Amazon, Seattle, WA Nov 2018 - Apr 2023

May 2021 - present - Principal Software Development Engineer Amazon

Most tenured principal engineer for Devices, Audio, Video and Amazon Display Advertising (DAVADA, an organization of over 300 engineers, reporting directly to Vice President.

- Drove engineering, reliability, and operational excellence efforts (tooling, process, automation, best practices, architectural improvements) across organization.
- Provided guidance on system design and architecture across different advertising systems, products, ad types, and functional areas.
- Led ongoing org-wide effort for [re] architecture of publisher facing advertising systems, including ad products for Fire Tablet, FireTV, Freevee, Twitch, live sports, Audio, and Alexa.
- Established and refined cross-team development processes, including design review series, operational readiness reviews, CI/CD standards, and RFC process.
- Advised my manager and other VP and director level executives on critical technical decisions.
- Helped establish and lead monthly operational service reviews for each director's sub-organization in overall DAVADA organization.
- Coordinated efforts between engineering and science teams, especially for IDless advertising and publisher-related

optimization, experimentation, and simulation efforts.
- Mentored other principal engineers and senior engineers.
- Recruited, on-boarded, led, and managed a new engineering team responsible for evaluation, prototyping, and integration of privacy preserving advertising standards.
- Started a cross team quality focused working group to improve automated testing and CI/CD practices.

May 2020 - May 2021 Principal Engineer - AWS Observability

Principal Engineer for AWS Open Source Observability org

- Engineering lead from design thru delivery of public preview launch of [Amazon Managed Service for Prometheus](#) (AMP).
- Provided engineering guidance to [Amazon Managed Service for Grafana](#)] (AMG) team
- Mentored multiple AWS contributors to [OpenTelemetry](#) to support the [AWS Distro for OpenTelemetry](#) (ADOT) launch.
- Led engineering across multiple teams in AWS Observability organization.
- Defined technical architecture, high level system design, and multiple low level designs for AMP.
- Made early architectural decisions for Amazon Managed Service for Grafana.
- Drove scalability efforts(one covered in this [blog post](#)) for AMP and Cortex open source.
- Helped recruit, onboard, and mentor engineering team members for all three teams.
- Coordinated technical decisions and planning across AWS engineering teams, external contractors, and [Cortex](#) open source community
- Defined product roadmap, annual planning, backlog grooming, estimation, sprint planning along with engineering managers and product managers.

2018 - 2020 Principal Engineer - Multichannel Advertising

Led cross-team software system infrastructure improvements in Amazon Multichannel Advertising across ad serving, campaign data management, experimentation infrastructure, and demand side platform systems.

- Provide mentoring and technical leadership across organization of over 190 software engineers.
- Reviewed significant software designs and architectures across organization, focused on core ad serving, campaign management, and data storage infrastructure,
- Led design of advertising experimentation infrastructure improvements.
- Analyzed challenges to feature velocity for [Amazon Demand Side Platform](#) (Amazon DSP) used by advertising agencies, traders, and internal account managers to manage advertising campaigns across display ad products.
- Defined Amazon DSP's technical vision, reference architecture, and long-term technical strategy.
- Chartered and led cross-team working group to improve bulk editing and batch update related features to unblock key Amazon DSP features, including bulk sheet upload, [bulk editing](#), and [public APIs](#).
- Developed ad serving and campaign management services used for multichannel advertising in Java.
- For context, Amazon was [#3 in digital ad revenue](#) in 2019; Amazon DSP had [11.6% of net digital ad revenues in 2021](#), up 55.5%; and [Amazon disclosed ad earnings](#) > $30 billion/year In Feb 2022.

Staff Software Engineer/Tech Lead/Manager, Google, Kirkland, WA 2013 - 2018

2016 - 2018 Staff Software Engineer at Google

2013 - 2016 Senior Software Engineer at Google

- Tech lead of ads frontend advertising SRE team, (first Ads Frontend Advertiser, later Ads Frontend UI).
- Managed ads frontend SRE team for two years.
- Managed Releases and Rollouts team for one year, designing, developing and maintaining software products for controlling and orchestrating automated software deployments built with Python, Go, JavaScript, and AngularJS.
- Built web interfaces for internal products in AngularJS, Polymer, and Django.
- Led overall design of crash collection, analysis, and reporting system in use across production servers at Google. Implemented collection service in C++ for collection of core files and heap dumps. Contributed to web UI (Go, JavaScript/Polymer).
- Developed portions of monitoring dashboarding system adopted across company. Designed merger between time series query backends for two different dashboard systems after decision to merge teams and products.
- Led regular design review series for larger ads frontend team.
- Set vision for production platform used to standardize and automate operational and production concerns for ads frontend systems used by advertisers and publishers.

Sr. Software Development Engineer, Amazon, Seattle, WA 2009-2013

2009 - 2011 Software Development Engineer (SDE II) Display Advertising Frontend

2011 - 2013 Senior Software Development Engineer Kindle Advertising Products

- Successfully delivered display and mobile advertising products by designing, developing, and maintaining web services for ad delivery and tracking as well as building interactive online advertising experiences.
- Provided leadership to other developers by serving as scrum master and consulting on software design and operational best practices.
- Crucial to launching Kindle with Special Offers product line by designing and developing multiple major server side components and providing operational support during internal beta and during and after launch.
- Mentored other developers and aided extensively in recruiting and interviewing developers for team and advertising organization as a whole.
- Designed, developed, and maintained web services to deliver advertising to Kindle devices and process click through actions from device using Java, JMS, Spring, and Hibernate.
- Built numerous custom display advertising solutions for advertising partners, and helped develop in-house event driven rich media framework using ActionScript and JavaScript as well as jQuery
- Built rich media advertising experiences for Amazon display advertising using FreeMarker, JavaScript, ActionScript, HTML, and CSS.
- Helped design and build online event tracking service used across company as part of a cross team initiative.
- Integrated advertising placements with Amazon retail website using Perl and Mason.
- Led efforts to automate testing of Javascript and FreeMarker used by display advertising using HTMLUnit and QUnit.
- Built tools and web interfaces for ad scheduling work-flows used by account managers, graphic designers, and ad operations using Tomcat, Spring MVC, and JSP.
- Led design, development, and launch of web site for voting on the most beautiful advertisements (AdMash).

Sr. Software Developer, Cyber Operations, Inc., Pelham, AL 2007-2009

- Developed TCP/IP and HTTP client/server applications with web and desktop clients in C++ and JavaScript.
- Product & engineering lead for ACL Compliance Director, a system for managing network security policies of routers, switches and firewalls.
- Developed authentication library compatible with TACACS+, Radius, and LDAP.
- Performed Linux server administration for web, mail, domain, authentication, and file storage services.
- Managed support for customers including the Defense Information Systems Agency (DISA) and the National Aeronautics and Space Administration (NASA).
- Prepared presentations, online advertising, direct mailings, and authoring technical articles for marketing campaigns.

Older Experience

From 1995 onwards I held various software development positions, starting with co-founding BoxTop Software where I headed software development until 2000. I also served in the US Army Signal Corp as an NCO from 2003 to 2007 and from 2007 until 2009 in the Army Reserve.

Visit http://www.ranton.org/experience for a complete list of past experience.

Education

- MS in Computer Science Drexel University, Philadelphia, PA, 2020-2023.
  - Coursework focused on Computer Graphics, Computer Vision, Deep Learning, Machine Learning, and AI.
  - Graduated June 2023 with cumulative GPA of 3.97
- BA, Bachelor of Arts, Computer Science from Thomas Edison State University 2018
- AS, Associate of Science from Excelsior College 2008

Accomplishments and Certifications

- US Patent # 7,246,177, System and method for encoding and decoding data files
- Served as a Sergeant in the US Army 51st Signal BN and US Army Reserve, 324th ITSB
- Decorated veteran of Operation Iraqi Freedom
- AWS Certified Solutions Architect – Associate
- AWS Certified Machine Learning - Specialty (MLS)