

Anthony R. Thielen

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Dynamic and accomplished engineer with proven ability to develop and architect highly-available and concurrent distributed systems in autonomous work environments. Voracious reader and autodidact with a passion for learning new technologies, methods, and tools. Proven ability to mentor junior hires and contribute business driven decisions on tech stack.

EXPERIENCE

Optum Technology - Eden Prairie, MN

2019– present

Full Stack Engineer - Team Lead (January 2019 - present)

Team Lead and Full Stack Engineer integrating emerging technologies for the Product Engineering & Data Solutions Team.

Best Buy - Richfield, MN

2016 – 2018

Software Engineer - Recommendations (June 2017 - December 2018)

Member of Agile Recommendations team focused on optimizing, refactoring, and building new features for Best Buy's Recommendation Engine including dynamic filtering, boosting, complex event processing, and real-time event capture of 20M+ requests weekly that earns \$1.4B+ in annual revenue.

- Designed and implemented Java Spring Boot microservices emphasizing metric collection and 12 Factor App principles for deployment in a containerized environment as part of a Recommendation Platform redesign.
- Responsible for high-level architectural decisions and technical feature design for several applications including the final solution for the main NOSQL data model in Cassandra that stores batch and real time recommendation datasets.
- Refactored the real-time data ingestion solution utilizing Apache Storm and Kafka to reduce latency and increase throughput, leveraging Storm's distributed and parallelized system to augment batch processing recommendations.
- Contributed to Recommendation platform redesign and migration to Openshift, emphasizing best practices, metrics collection, and ease of deployment to increase value, reduce complexity and footprint, and increase manageability.
- Responsible for the principal work on team's Behaviour Driven Development testing solution as a step forward in an effort to create robust automated integration testing to move the team closer to true continuous deployment.
- Conducted stress tests to analyze and adjust system resources and optimize performance to handle 12K+ requests per second with reduced footprint, saving \$200K+ in AWS costs during peak holiday shopping season.
- Led initiative to turn DevOps into a team philosophy by fleshing out documentation on stack operations, furthering stack's transparency through alerts and logging, automating repetitive tasks, and introducing ChatOps via Hubot. Project led to reduction of 160 hours of monthly labor.
- Maintained and supported multiple automated staging environments in AWS leveraging chef scripts and Openshift utilizing Jenkins CI/CD, and created development docker images for local integration testing.
- Spearheaded a learning culture for junior developers and implemented a bi-weekly book club to develop team capabilities in languages, Big Data tools, Docker, development best practices, automation, and current methodologies.

Software Engineer Intern (May 2016 – Aug 2016)

- Developed a scalable real-time geographical map to display user monitoring data using Node.js, Leaflet.js, and D3.js valuable in diagnosing geographically isolated errors and to visualize worldwide trends from user requests.
- Led development of statistical analysis modules and D3.js data visualizations to extend functionality of the monitoring map to allow comparison against historical datasets for anomaly detection and alerting.
- Utilized data visualization tools to display trends across Best Buy's web systems to diagnose customer-impacting failures and measure website response times using Graphite and custom monitoring solutions.

SKILLS

Languages: Java, Python, C, C++, Bash, JavaScript, Coffeescript

Tech and Framework: Spring, Spring Boot, Docker, JUnit, Kafka, Openshift, Cassandra, Jenkins, Storm, Solr, AWS, Prometheus, Graphite, Grafana, Node.js, Git, Hubot, Netflix Feign/Eureka/Hystrix, Splunk, Kibana

Concepts: Test Driven and Behavior Driven Development, Agile, Constant Deployment/Integration/Improvement, Automation System, Operational Transformation, Monitoring Theory, Metrics Collection, DevOps, Deployment Orchestration, Site Reliability

EDUCATION

BS Computer Science, University of Minnesota Duluth - Duluth, MN