

# Alexander Moore-Niemi

Software Engineer

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## Keywords

Languages Java, Python, Ruby, Shell, Rust (Learning)  
Tech Elasticsearch (Expert), Lucene, Unix, AWS, Spark, Kubernetes, Pandas, scikit-learn  
Domains Search, Big Data, NLP, REST, APIs, MLOps (Learning)

## Professional Experience

- 2021 – **Senior Software Engineer III**, AMAZON, Boston.  
Features for Search based / Web based question answering for Alexa. On call. Production standards include A/B testing.
- 2017 – 2021 **Software Engineer II**, AMAZON, Boston.
  - 2020 Work with Applied Scientist on custom Rust search engine using Kubernetes (EKS) as control plane.
  - 2020 Work with Applied Scientist on spam filtering pipeline. Presented paper on spam filtering in AMLC (Amazon Machine-Learning Conference), 2nd author.
  - 2020 Cut cost in half (millions of dollars per year) of Elasticsearch infrastructure while improving performance; enabled us to quadruple index size.
  - 2020 Spark infrastructure for quickly indexing hundreds of millions of documents.
- 2017 – 2019 RPC services in Java and Python serving 1000-10,000 TPS.
- 2016 – 2017 **Software Developer**, RAIZLABS, Boston.  
Building scalable, performant cloud REST APIs to serve custom built mobile apps.
- 2014 – 2016 **Software Engineer**, ZIPCAR, Boston.  
Building Ruby and Java services. On call and release engineer.
  - 2016 Contributed microservices in Java/Go during rewrite using inhouse SOA framework.
  - 2015 Work on core platform to support secure vehicle mobile unlock.
  - 2014 Extended "fleetsharing" with Avis cars while also improving vehicle availability.
- 2013 – 2014 **Junior Software Engineer**, PROMOBOX, Boston.  
Development on front end and back end services in Ruby on Rails and Javascript integration.
- 2012 – 2013 **Marketing Automation**, WORLDONE INTERACTIVE, Boston.  
Used R for NLP on physician discussion, scripting for marketing automation.

## Education

- 2019 **Certificate: Machine Learning University ("MLU") Math**, Amazon, Boston.
- 2012 **Certificate: Computation and Algorithms**, MIT, Boston.
- 2004–2009 **BFA Film/Media Production**, Emerson College, Boston, Graduated with honors.