

# Alexander Moore-Niemi

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*Software Engineer*

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## Professional Experience

- 2016 – **Software Developer**, RAIZLABS, Boston.  
Building web APIs from scratch to serve custom built mobile apps.
- 2014 – 2016 **Software Engineer**, ZIPCAR, Boston.  
Focus on API design, research in hypermedia and REST. On call and release engineer.
  - 2016 "workerbee" project. A JRuby gem wrapping a Java microservices framework (using RabbitMQ as ESB).
  - 2016 "New platform" project: SOA implementation of microservices on PaaS via contributions to core inhouse framework and individual services. Mobile-first API design and implementation.
  - 2015 "Instant Drive" project: adding a new service and rebuilding parts of the core platform to support unlocking vehicles from our mobile phone app.
  - 2015 "Core API" project: transition away from shared models via gem to an ActiveResource-like pattern, loosening coupling to database. Preparatory work on monolithic architecture for decomposition into services.
  - 2014 "Pooling" project: extending "fleetsharing" with Avis cars while also improving vehicle availability. Required extensive redesign of original Zipcar data model, and was implemented as a Ruby on Rails API. Patented.
- 2013 – 2014 **Junior Software Engineer**, PROMOBXXX, Boston.  
Development on front end and back end services in Ruby on Rails and Javascript integration.
- 2012 – 2013 **Marketing Automation**, WORLDONE INTERACTIVE, Boston.  
Scripting and data analysis for the marketing team.
  - 2012 Used R for NLP to identify discussions in need of moderation. Patented use of NLP to identify physician discussions about pharmaceutical treatments.

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## Open Source

- graph\_function a Ruby gem to generate graphs of asymptotic performance
- array\_collapse a Ruby C extension to add Array#collapse, a method that allows blocks to be passed in to flatten
- proc\_compose a Ruby C extension to add Proc#compose, a method for composing procs so that they can be passed in as a single block to any mapping operation
- figtree a Ruby gem for parsing ini\_files using parslet DSL

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## Keywords

Languages Ruby, Java, Groovy, Javascript, Swift, Haskell  
Frameworks Rails, Grails, Sinatra, Backbone, Jekyll, Yesod  
Practices TDD, SOA, Pair programming, Functional programming, Kanban, Scrum, Agile

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## Volunteering

2012 – Now **Transbucket.com**, *Web Developer*, Migrated site from PHP to Ruby on Rails and implemented many new features. The premiere site for transgender surgery photos, with 85k users ( 1k active uniques per month).

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## Publications

2016 **Developer Testing: Building Quality into Software**, *Addison-Wesley Signature Series*, A sidebar on how to think about types as a way of extending design by contract.

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## Education

2012 **Certificate: Computation and Algorithms**, *MIT*, Boston.  
2004–2009 **BFA Media Production**, *Emerson College*, Boston, Graduated with honors.