Buck Shlegeris

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Fan of elegant abstractions and functional programming
bshlegeris@gmail.com
bshlgrs.github.io

Employment

- **PayPal** San Francisco
  January 2015-current
  - Writing distributed services in mostly functional Scala, with Akka, Spray, etc
- **App Academy** San Francisco
  January 2014-July 2014
  - Taught Ruby on Rails, Ruby, Javascript, Backbone
  - Delivered lectures, wrote learning materials

Personal projects and presentations

- **Ruining the Coding Interview** 2015
  github.com/bshlgrs/ruining-the-coding-interview ***Presented at Scala By The Bay 2015***
  - A project where I try to automate various types of code optimization which are typically done manually, such as data structure selection
  - I presented a Scala program which takes (a subset of) Java source and outputs Ruby code with optimized data structures. This project also involved writing a computer algebra system
  - My presentation is viewable here: https://www.youtube.com/watch?v=oPFga7eg3Uw
- **rPeANUt compiler** mostly 2014
  github.com/bshlgrs/rpeanut-compiler
  - Compiler from a subset of C including pointer arithmetic to a RISC instruction set
  - Currently partially deployed to the web with ScalaJS

Education

- **Australian National University** Canberra, Australia
  BSc *2012-2014*
  - Undergraduate coursework: Algorithms, operating systems, AI, algorithmic information theory and universal AI, theory of programming languages, computer architecture, linear algebra and ODEs, theory of computation
  - Director and presenter at CompCon, an inaugural Australian undergraduate CS conference; presented on algebraic behaviour of data structures
  - Completed two research projects and a variety of advanced undergraduate courses ahead of my year level
  - One of those research projects was on using denoising autoencoders and other neural nets for q-learning in reinforcement learning, using Theano

Skills

- I normally code in Scala, Ruby, Javascript, Python, Haskell, Java, or C/C++
- Web development, particularly in Rails and React
- Data structures, programming language theory/type theory, machine learning (especially neural nets)