JOEL GRUS

joelgrus@gmail.com

twitter.com/joelgrus
github.com/joelgrus

Technical leader, software engineer, data scientist, best-selling author, skilled communicator, podcast host, and strong generalist. Enthusiastic about well-designed software, clean code, mentoring and learning, extracting value from data, and functional programming.

TECHNOLOGIES I HAVE USED, TO VARYING DEGREES, AND WITH VARYING LEVELS OF HAPPINESS

Haskell, Scala, Python, Go, C++, JavaScript, machine learning, PureScript, Java, SQL, various NoSQLs, MapReduce, C#, F#, Clojure, various AWS products

BOOKS

Data Science from Scratch: First Principles with Python (O'Reilly Media, 2015)
Thinking Spreadsheet (self-published, 2010)

OPEN SOURCE CONTRIBUTIONS

allenai/allennlp: core contributor to PyTorch-based NLP deep-learning library
clab/dynet: created and maintain Scala bindings for C++ dynamic neural net library developed at CMU

WORK EXPERIENCE

ALLEN INSTITUTE FOR ARTIFICIAL INTELLIGENCE | Seattle, WA | 2016 - present
Senior Research Engineer
Research and engineering on the AllenNLP library. Did a little bit of everything: library design, Python refactoring, continuous integration, model implementation and training, building ReactJS demos, writing tutorials, end-user support, and all the rest.

Previously worked on the Aristo project, teaching computers to answer science questions. Responsibilities spanned pure engineering tasks (e.g. building data pipelines, implementing RPC frameworks), pure research tasks (e.g. designing and building topic-specific question solvers, coming up with strategies to generate large numbers of science questions), and everything in between (e.g. creating Java wrappers and a Scala API for a C++ neural net library)

GOOGLE | Seattle, WA | 2014 - 2015
Software Engineer
Tech lead on Supply Chain Planning team. Responsible for technical design and implementation of backend services, gathering requirements, coordinating developers, writing code, and relationships with business users. Previously backend engineer on Display Ads; designed and built data-driven features for a greenfield ads benchmarking tool.

VOLOMETRIX | Seattle, WA | 2011 - 2014
Chief Scientist and Head of Analytics
Employee #2 at enterprise SaaS startup. Created prototype for in-memory analytical engine, designed and implemented most of the analytics in the product, and participated in every other aspect of growing the company from 3 people to 15 people. Responsibilities split roughly evenly among data science R&D, writing production code, and managing people. (Company acquired by Microsoft in 2015.)

DECIDE | Seattle, WA | 2010 - 2011
Analyst
Wrote code, built models, and designed processes to collect, analyze, and predict data for consumer electronics startup. (Company acquired by eBay in 2013.)

FARECAST / MICROSOFT | Seattle, WA | 2006 - 2010
Senior Analyst / "Fareologist" / Software Developer
Mined travel data for "fareology" insights, wrote code and built dashboards to track business metrics and customer activity, simulated revenue impact of changes to analytic products, designed algorithms to identify "deals". (Company acquired by Microsoft in 2008.)

TAHOMA CAPITAL | Bellevue, WA | 2006
Senior Analyst
Handled day-to-day operations of FX portfolio at hedge fund; modeled value and risk of proposed trades.

REPRESENTATIVE TALKS

Livecoding Madness: Let's Build a Deep Learning Library
ODSC West 2017 (also, Puget Sound Python Programming meetup)

Using AI to Answer Science Questions
ODSC East 2017 (also, Southern Data Science Conference 2017)

Fizz Buzz in Tensorflow
PyData Chicago 2016 (also, ODSC West 2016, WrangleConf 2016)

Fun With Trump Tweets
Seattle TwitterDev Meetup, October 2016

Learning and Teaching Data Science from First Principles
Data Day Texas 2016 (I have given similar talks at various other venues)

Stupid Itertools Tricks for Data Science
PyData Seattle 2015

Image Posterization with k-Means Clustering
Seattle PyLadies (workshop)

Secrets of Fire Truck Society
Ignite Lightning Talk at Strata 2013

PODCAST

Adversarial Learning (co-hosted with Andrew Musselman)

EDUCATION

MS Social Science, Caltech
MS Mathematics, University of Washington
BA Mathematics, Rice University