

gavin leech

data scientist, software developer

about

London based.

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research

[Speaker similarity](#)
[Aid impact bounds](#)
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[On data science](#)
[Maximum wage](#)
[Controversy vs impact](#)
[Formal analogies](#)

programming

Python/SciPy/Spark,
Keras, *nix, C#, JS
(ES6, node), PHP,
Scala, Pig, LaTeX
...Powershell.

metadata

[vs publication bias](#)
[Career JSON](#)
[Poems](#)

interests

effective altruism, failures of human reasoning, failures of human reasoning about human reasoning, statistics as applied philosophy, data mining as conceptual analysis, lists.

experience

- Sep'16 – Now **Data Scientist** AXA Insurance, London
Creating machine learning models (GLMs, GBMs, ANNs) for pricing, medical risk, image recognition on architectural plans; scraping at scale; orchestrating a TB/day Hadoop pipeline. I head a team of 3 junior engineers & scientists.
Buzzwords: Python, Spark, Keras, Jupyter, Hadoop, Oozie, Avro, Pig, Pytest.
- May – Aug'16 **Frontend Developer** Furo, London
Helped on a fresh procurement web app. Sole responsibility for design & implementation of a tendering system, through TS controllers from APIs.
Buzzwords: C# 6, Typescript, Angular, Visual Studio/SQL Server, Bitbucket.
- Oct'15 – Jun'16 **Software Developer** Freetobook, Glasgow
Developed on a large legacy accommodation engine: PHP back-end, front-end, web APIs. Sole design of secure, PCI compliant, credit-card storage.
Buzzwords: PHP (5 & 7), LAMP, SQL, Laravel, cURL, Gitlab, New Relic.
- Jun – Sep'15 **Graduate Software Developer** Stugo, Glasgow
Jumped into web tech from scratch; wrote first production code within 2 weeks, deployed to pharmacies worldwide. Worked on a medicine pump manager (C#) & a secure pharmacy record system (nodeJS). 4th employee.
Buzzwords: C#, WPF, node.JS, MEAN, Ractive, Mongo, Vagrant, VMWare.
- Dec'14 – May'15 **Database Developer** STAND International, Edinburgh
Built a small ops database for an international NGO. Greenfield design & deployment; using the 365 nonprofit licence, I delivered this at zero cost.
Buzzwords: MS Access, Office365, SQL, UML, data protection.
- Jan – Apr'14 **Assistant Statistician** The Scottish Government, Edinburgh
Produced & explained official stats for Education Analytical Services. Worked on the 'Insight' reporting platform, giving teachers hard data & viz on their classes & themselves. Prepped the national Social Care Survey 2015.
Buzzwords: SAS, SQL, OLAP, PCA, data protection, official statistics.

software

2017	sesame: SEarch for StAtistical MEthods Decision trees / search engine for which stats you can/should use. Scala.js	work in progress
2017	The First Computers Tiny app (and a conceptual analysis) to solve a historical question. Uses the Transcrypt Python transpiler - unfortunately.	deployed here
2016	modernlove A visualiser for sexualities. Python / Django / nose / seaborn	work in progress
2015	Py2HTK Wrapper for venerable (creaky) ML library, the Hidden Markov model ToolKit.	github here

education

2013 – Now	BSc Mathematics & Statistics Proper foundation: Analysis, probability theory, functional analysis, linear algebra, ODEs & PDEs, experiment design and RCTs, sampling theory, classical mechanics & field theory, stochastic processes, medical statistics, Bayesian modelling, thus far. Part-time during full-time work.	The Open University
2014 – 2015	MSc Software Development Merit. Conversion Masters: Java, SQL, HTML/CSS/PHP, MC6800 assembly plus 'patterns, data structures & algorithmics. The psychology of security, law of safety-critical systems, design of UX. Thesis in computational linguistics: <u>'Hidden Markov Models in the study of accommodation'</u> .	University of Glasgow
2008 – 2012	MA (Hons) Economics with Philosophy 2.1. Topics covered included formal logic, micro- & macro- economics, rudimentary statistics, health policy, development policy. I received a four-year Alumni Fund scholarship on merit. Dissertation in foreign aid effectiveness: <u>'Evaluating aid abolitionism'</u> .	University of Aberdeen