Tom Martin

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Experience

Data Scientist   **Nov 2017 (current)**

Skills Matter, Finsbury Circus House, 10 South Place, London
- Initiated drive to become data-driven organisation, identifying KPIs with product teams. Creating visualisations and Tableau dashboards, integrations with Metabase and Slack.
- Identifying customer segments using RFM analysis.
- Identify trending StackOverflow topics using exponentially weighted moving average/variance of tag usage in new questions.
- Creating data pipeline, reading from multiple third-party data sources and writing to AWS redshift.
- Created Flask web app to view and summarise conference reviews. Ranks conferences using lower bound of the Wilson score confidence interval for a Bernoulli parameter. Use sentiment analysis to provide summaries of written reviews.
- Integrate MailChimp mailing lists with user profile.
- Mentoring junior members of staff on using data analysis tools

Software Engineer   **Dec 2014 - Nov 2017**

OpenTable, Alphabeta Building, 14 -18 Finsbury Square, London
- Updated and maintained entire pipeline for promotions and offers, including database, online editor, APIs, frontend
- Created API to support multilingual translations of promotions
- Updated concierge website frontend, utilised GraphQL to streamline database access
- Created mobile-first responsive frontend for international launches
- Microservice architecture, using full-stack JavaScript: NodeJS, Express, Hapi, Backbone, React, Grunt, MongoDB, Webpack
- Embraced DevOps culture: Docker, Mesos, Singularity

Developer   **May - Oct 2014**

Modaventure, Google Campus, London
- Created frontend for contractor recruitment platform
- Tech stack included AngularJS, Grunt, Bower, NPM, MySQL
- Initiated data visualisation product using D3JS

Languages, Technologies and Skills

- JavaScript, Python, R, Ruby, SQL,
- MongoDB, MySQL, PostgreSQL
- Numpy, Pandas, Scikit-Learn, Gensim, Matplotlib, Seaborn
- Tableau, Google Data Studio, Jupyter Notebook, R Studio, Metabase
- AWS, Docker, Heroku
- Public speaking

Public Speaking

- The Why of Data-Driven Organisations, Infiniteconf 2018, July 2018, video: https://skillsmatter.com/skillscasts/11885-lightning-talk-the-why-of-data-driven-organisations. A talk about the key motivating factors for a business aspiring to become "data-driven"
- Neural Networks from Scratch, Infiniteconf 2017, July 2017, video: https://skillsmatter.com/skillscasts/9959-neural-networks-from-scratch. An introduction to how artificial neural networks work, including their architecture and the gradient descent learning algorithm, with code samples.
- The Brief on Developer Book Clubs, London Web Standards, January 2017. A review of the motivations for and progress of a book club I initiated at OpenTable.
- Progressive Web Applications, Web Platform London, December 2016. A look at the key APIs behind progressive web apps: service workers, cache API, fetch API.

Education

Data Science MSc   **2018 - 2020**
City, University of London
- Modules completed so far: Visual Analytics, Principles of Data Science. In process: Big Data, Neural Computing
- Visual Analytics Project "Exploring Responses to Events: A Spatiotemporal Analysis of Twitter Activity" found groups of London boroughs by twitter activity, using k-means clustering of normalised hourly tweets by borough. Identified key time periods and topics using IDF of keywords. Link: https://github.com/tpgmartin/london_new_years_tweets/
- Project "Classification of Rap Artists by Lyrics" explored a range of text representation techniques to correctly classify rap artists by their lyrics using a linear classifier. Attained average f-measure of 77%. Link: https://github.com/tpgmartin/rap_songs_and_artists_analysis

Physics with Theoretical Physics MSci, First Class   **2008 - 2012**
Imperial College London
- Undergraduate Research Opportunities Programme (UROP) June - August 2011

Courses

Data Analyst Track   **Sep 2017 - Oct 2017**
Dataquest.io, online

Machine Learning Engineer Nanodegree   **Sep 2016 - Feb 2017**
Udacity, online
- Capstone: MNIST digit classification with SVM-KNN ensemble. Able to train classifier with accuracy of 98.4%. Link: https://github.com/tpgmartin/machine-learning-nanodegree
- Projects include: Student intervention supervised learner, customer segments unsupervised learner, smart cab reinforcement learner
- Using SciKit-Learn, Numpy, Pandas, Matplotlib

Web Development Immersive   **Dec 2013 - Mar 2014**
General Assembly, London
- Final project: program.me, a Ruby on Rails app for private tutors to plan lessons and set reminders. Link: https://github.com/tpgmartin/Program.me