Brad Melin: System Engineer

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I'm a generalist with over a decade of experience who cares deeply about user experience at all levels: from customers using an intuitive product to other engineers using obvious APIs. I enjoy identifying areas of a codebase or product that need improvement and working on them, and including other engineers if extra skills are required; but since I have experience across the stack I am often able to take action immediately. I take pride in being able to reduce problems and solutions to a simple state, and view this as one of the fundamental requirements of building and delivering software.

Because I'm relatively outgoing, have a wide range of interests, communicate well, and don't take myself too seriously, I tend to connect easily with many people in an organisation, which enables me to be an effective teammate and leader. I enjoy and have experience mentoring junior engineers, sharing knowledge with technical and non-technical people alike, and participating in hiring.

I'm currently working on fast graph processing at my day job, and in general I'm interested in automating human-intelligence tasks, which has led me to study machine learning on and off over the past few years, particularly using neural networks and natural language processing.

Experience

System lead at Fraugster, a fraud-detection startup

October 2020 - present

- Leading development, product, and adoption of graph processing across the company.
- Building tools for machine learning and analytics teams to help them simulate and model fraud.

Tech stack: Go, Parquet, Presto / Athena, Kubernetes, Helm, Kafka.

Staff software engineer at Bain & Company, a management consultancy

September 2019 - September 2020

Technical lead on projects that solved business problems for large corporates, and coached data scientists in my team to be more effective programmers.

Key project:

- Increased a client's revenue by working on a machine learning + web application to help minimise arbitrage of their products across the European market.

Tech stack: Python, React.

Full-stack engineer and technical team lead at Luno, a cryptocurrency exchange and wallet

February 2018 - August 2019

Learned a lot just by being part of a scaling startup, including how to lead a cross-functional team, and maintaining company culture during rapid growth. I fell completely in love with Go, and learned how to be a good technical interviewer. Created and delivered a series of talks to help train our non-technical staff on the tech that we used.

Key projects:

- Decreased customer support requests by designing and implementing a far better search for our help centre, using latent semantic analysis.
- Led a successful overhaul of our website and web app, which required staged rollout and rollback, and touched every part of our stack.
- Designed our first ETL pipeline for ML training, with reproducible runs and easy parameter updates. Used Go for orchestration and Python for model training.

Tech stack: Go, TypeScript, MySQL, gRPC, Protocol Buffers, Angular, AWS, Jenkins.

Co-founder and consultant at Octarine

June 2016 - January 2018

Built a small software design and development studio from scratch. I was responsible for many parts of the business, including payroll, finances, hiring, and training. Managed the entire lifecycle of projects, from pitching to delivery.

Full-stack engineer at [Logimeter](#), a telecommunications company

November 2014 - January 2018

Hired as a front-end developer to build their AngularJS app, but soon began working with Python and Django in earnest. I mainly worked on development, infrastructure and maintenance of their application code and telecommunications infrastructure. Around this time I started to develop an interest in using statistical methods to build production features.

Full-stack engineer at [Firing Squad](#), a web design agency

March 2012 - October 2014

Freelance HTML, CSS, and JS web site development

December 2011 - Feb 2012

Technical writer at [Laragh Courseware](#)

November 2010 - November 2011

Open-source contributions

- [Django SQL Explorer](#): [Added Django 2.0 compatibility](#)
- [Django](#)
  - [Fixed a bug in contrib.postgres](#)
  - [Added the StrIndex database function](#)
- [Open edX](#): Various bugfixes and improvements
- [REM unit polyfill](#): [Added media query support](#)

Education

- Licensed Scrum Master at [Scrum Inc.](#): January 2020
- [Deep Learning, a 5-course specialization by deeplearning.ai on Coursera](#): October 2018 - April 2019
- Bachelor of Arts at the University of Cape Town: 2007 - 2009
  - Dual major in psychology and English literature

Languages

English: Native. **German**: Intermediate. **Afrikaans**: Elementary.