

Barney Jackson

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Pragmatic, versatile and ambitious software engineer with an entrepreneurial drive and an aptitude for complex problem solving. Unphased by new technologies. Committed to remedying global, environmental and social issues through technology. Strong communication and leadership skills.

PROGRAMMING SKILLS AND EXPERIENCE

- Web frameworks including Flask, Django, Ruby on Rails, .NET, Node.js
- SQL, NoSQL and graph databases, including Postgresql, MySQL, MongoDB, Neo4j, TitanDB and Cassandra
- Development tools and services including Vim, Git, Heroku, Amazon Web Services and Docker
- HTML5, CSS3 (SASS), JavaScript (CoffeeScript) and libraries such as jQuery, Backbone and D3
- Architecting and implementing data-oriented infrastructures, distributed and at scale
- Natural language processing, genetic algorithms and other machine learning algorithms in production
- Experienced and efficient at rapid prototyping

EMPLOYMENT

Chief Technology Officer (CTO): November 2015 – present

HandUp (crowdfunding for homelessness), San Francisco, US

Became proficient with an inherited application in a very short period of time. As sole engineer, familiar with the entirety of the stack including Python (Flask) application, hosting environment, database administration, and mobile-first front end. Responsible for bringing engineering ideas and insights to product direction, as well as planning all engineering projects in coordination with other teams. Work very closely with design team to schedule product roadmap and to prioritise features and updates that have large impact but allow us to move fast. Following a short transition period, assumed all responsibilities of the CTO.

- Implemented new crowdfunding product, “HandUp Campaigns”
- Architected and executed total refactor of donation transaction data model
- Reduced average server response time by over 70%
- Integrated advanced Stripe “Connect” platform to allow tax-deductible donations
- Streamlined deployment procedure to achieve continuous deployment methodology
- Managed and mentored summer engineering interns

Contract Software Engineer: July 2016 – February 2017

Plethora (automated manufacturing), San Francisco, US

Rapidly became a valuable contributor to a multi-team, complex engineering ecosystem, in spite of little prior domain knowledge and unfamiliar development processes and tools. Worked with the web and API engineering teams on several vital projects, as well as liaising with other departments such as business development and sales to build new tools and features.

- Wrote underlying SQL queries and Node.js API for a new internal metrics framework with multiple stakeholders
- Rebuilt user-facing “My Account” backend to new responsive design specification in Node.js and React.js
- Integrated static front-end CSS and React.js built by another external contractor

Full-Stack Software Engineer: September 2013 – October 2015

Coffee Meets Bagel (online dating service), San Francisco, US

Position awarded through the inaugural Silicon Valley Internship Programme; one of fifteen Computer Science graduates out of hundreds of applicants from top universities throughout the UK. Responsible for monitoring and developing core matching algorithms, extending and improving API functionality to power apps, architecting and implementing new features, as well as continually scaling and optimising all areas of the system as the product grew.

- Migrated and extended chat system, ensuring smooth service for millions of messages a month
- Designed and implemented an in-app chat system, removing dependency on SMS
- Lead the implementation and roll-out of a machine learning recommendation system
- Designed and implemented a curation system for new users
- Trusted with first-line responsibilities of CTO when absent, including leading engineering team meetings, managing product-critical algorithms, and handling operational issues 24/7
- Interviewing all new engineering hires
- In-house expert on multiple tools including Redis, Firebase, TitanDB and Gremlin query language
- Inventor, implementer and author of patent-pending features

Co-Founder, Managing Director and Developer: November 2012 – March 2015

Makeexist Ltd. (web and mobile design and development), Edinburgh, UK

Provided bespoke web applications and website development to startups, small businesses and agencies. As Developer, architected and implemented key projects. As Managing Director, responsible for acquisition of new work, handling company accounts and finances, and managing projects and clients.

- Architect, project lead and Ruby on Rails developer for a complex investment portfolio monitoring tool
- Built a highly customised e-commerce website making use of 3rd party APIs and external data sources
- Web developer for multiple mobile apps for National Health Service subcontracts

Awards Administrator: August 2010 – September 2013

Foster's Edinburgh Comedy Awards, London and Edinburgh, UK

Various positions including marketing "street team" member and Assistant Award Administrator, leading to Awards Administrator. Worked closely with the Awards Producer to facilitate judging and publicity of the Comedy Awards.

- Organised and booked 20+ judges and scouts to see over 500 shows over two weeks
- Organised hospitality, entertainment, photoshoots and attendance for Gala Show for national media
- Managed two Assistant Administrators

Software Consultant: July 2009 – November 2012

Self-employed, Edinburgh, UK

Provided services such as web development, CMS training and data management nationally to UK councils, as well as subcontracted services to third parties such as the British Vehicle Rental and Leasing Association (BVRLA) and PA Life.

Customer and Technical Support and Development: June 2008 – July 2009

e-mango Ltd., Bournemouth, UK

Key member of a web development company in both the support and development teams. Worked closely with large clients such as the International Bar Association, the BVRLA and Islington Borough Council.

EDUCATION**BSc (Hons) Artificial Intelligence and Computer Science, May 2013**

University of Edinburgh, UK

Dissertation explored optimisations in online search results presentation. Human-computer interaction metrics were analysed proving one variant more effective than Google's interface at the time.

Degree courses included Distributed Systems, Applied Machine Learning, AI Large Practical, Data Integration and Exchange, Text Technologies, Advanced Databases, Algorithms and Data Structures, Computer Security, Natural Language Processing, Natural Language Generation, Machine Translation and Natural Computing.

Nominated for the 2013 national BSc Final Year Computer Science Project Award hosted by CREST at University College London.

ADDITIONAL INFORMATION

- Avid participant in civic & impact focused hackathons
- Proposed and co-implemented the winning project at an invitation only hackathon in association with Mozilla and USA for UNHCR
- Active member of Edinburgh University Boat Club; multiple committee positions, medal winning crew member, training and managing a 30-strong squad to become outright Scottish University champions and silver medallists at British Universities
- Working knowledge of French, Italian and Spanish. Learning Japanese.
- H-1B specialist work visa

PERSONAL INTERESTS

- Outdoor pursuits such as surfing, skiing, snowboarding, climbing, hiking and sailing
- International relations, their historical origins, and the OpenSource Intelligence movement

Excellent references available upon request