Ellie Birbeck

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Experience

Software Engineer
Zumper | San Francisco

Sep 2018 - present

- Developed a computer vision system using convolutional neural networks to identify domain-specific scenes and objects, optimized for CPU inference to label over 150k images per day
- Built containerized microservices for a web-based (online) and email-based (offline) recommendation engine and price prediction models
- Set up a pipeline to automate retraining, testing, and deploying machine learning services
- Implemented an integration with Facebook Marketplace, to process 70% of company leads

Sales Executive
LLG | Sydney

Apr 2018 - Jul 2018

- Generated revenue by sourcing leads and closing deals for women's leadership conferences
- Pitched to C-suite executives at state and federal government and ASX-listed companies
- Consistently exceeded personal monthly revenue targets by more than 25%

Technical Writer
Freelance | Remote

Nov 2017 - Aug 2018

- Clients include DigitalOcean and Hyperion Development (now CoGrammar)
- Created end-to-end technical tutorials mostly focused on artificial intelligence topics such as machine learning, deep learning, model deployment, and also general software engineering
- Generated up to 100k views per publication - selected samples at elliebirbeck.com/writing

Software Engineer
Mi Águila | Bogotá

Jul 2017 - Sep 2017

- Built a machine learning system to predict spatiotemporal driver demand across Colombia
- Developed an interactive heat-map interface for internal ops teams to visualize predictions
- Created a matching algorithm to suggest high-demand locations to drivers in-app in real time

Teaching Instructor
Digimakers | Bristol

Sep 2014 - Jun 2017

- Delivered hands-on programming and robotics workshops to children at science museums, schools, conferences, and city-wide events
- Promoted the organization through marketing events, engaging with local news outlets, maintaining client databases, and growing social media channels by 74% annually

Education

University of Bristol
M.Eng Computer Science

Sep 2013 - Jul 2017

- First Class Honours (~4.0 GPA)
- Thesis involved developing a novel sentiment classification algorithm for stock prediction
- Third year spent studying abroad at the University of Oregon

Awards

- Best Student Paper at the IEEE SSCI 2018, an international symposium of conferences on computational intelligence
- Bloomberg Award for the Best Final Year Project in Machine Learning 2017
- Gold Award for the UK Senior Maths Challenge 2012 and the UK Junior Maths Challenge 2008 and 2007
- Elected as Head Girl at school, which involved managing a team of 16, chairing 3 councils, and public speaking to 1000+ people

Publications

- E. Birbeck, D. Cliff. *Using stock prices as ground-truth in sentiment analysis to generate profitable trading signals.* IEEE SSCI 2018