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Monzo Bank 22/11/2024

Dear Hiring Manager,

Backend Engineer

I am writing to apply to the backend engineer role I saw advertised on your website. I have a masters in Electronics and Electrical Engineering (1st) from the University of Nottingham and have been working on software for power electronic simulation as well as general electronics and software tools at Nidec Drives for the past 2 years.

I was recently looking at changing my current account away from Lloyds bank, at that time I had a Monzo account for small purchases but it was not my main bank. I did some research into ethical banking and Monzo seemed to have one of the best track records. I was particularly impressed by Monzos lack of investment in fossil fuel-based energy companies, arms companies, or tobacco companies and because of this I now use Monzo as my main bank. I feel Monzo is leading the way for other banks in this regard and I would love to be a part of that. I also saw that you have 30% women in technical roles which is amazing (we are less than 5% at my current job) and I think it would be great to be in an environment that encourages women to stick with programming.

Although my current job title and degree are electronics and electrical engineering focused, I have developed a lot of different software solutions at university and in industry. Writing software has always been the more appealing side of engineering to me as it seems like a purer application of maths. Some of my university projects included developing a line following car using OpenCV in C++; writing a full-stack web application including Vue.js frontend, Node.js backend and a SQLite database for streaming and storing data live from a car telemetry system; writing a MatLab program to generate phase maps from automated electro-magnetic simulations for a new type of lens and writing a Python Qt UI to reconstruct HDR and depth sensing images for my dissertation.

In industry I have written: VBA for electronics data processing including accessing and writing to the company SQL database and XML tables; Python scripts to process data and to interact with scopes and simulation software; and a Selenium web scraping tool with a Qt UI in Python. My largest project to date is a complete rewrite from fresh of an existing C# .NET program to process large datasets into thermal model parameters, I implemented an MVC framework, rewrote the WPF UI to be in-line with the company style guide and I improved the main processing algorithm run time from one hour to a few minutes using a new regression algorithm. Through using so many different languages and frameworks I learned to adapt quickly to new coding styles and practices as well as ambiguous requirements, all whilst adhering to the company coding standard. For fun, I maintain my own website kittyfarren.dev, make little electronics projects and do a bit of Advent of Code to try my hand at other

languages. I have also used Git and TFS extensively during my time at work and for home fun projects.

I hope to hear back from you soon and to discuss my application with you further at interview. More details are available on my CV.

Yours faithfully.

Kitty Farren