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Job Application for Data Science Intern

Dear Square Recruitment,

About Me

I'm very interested in joining Square for the summer as a Data Science intern. My mathematics background includes courses in linear algebra, probability, multivariable calculus. I am currently enrolled in a rigorous algorithm design and analysis class, where we have learned algorithms related to graph theory, network flows, Monte Carlo simulations, and linear programming. The data science course I am taking this semester (taught in R) is an interactive course that has provided me experience with data wrangling, visualization, and modeling, as well as team-based skills like project management and version control on GitHub. From my databases course last semester, I learned SQL, XML/XQuery, how to work with relational and NoSQL databases, indexing, and query optimization. The courses I have taken thus far are not the normal CS track — I've sought these out to get the skills necessary to do the exact work that this internship requires. I've created my own major at Duke, a combination of Computer Science and Statistics courses, to fulfill these ends. I have also taken Andrew Ng's Coursera course on machine learning which covers neural networks, SVMs, ensemble learning, techniques for applying machine learning to large datasets and more.

This April 2018, I won the American Statistical Association DataFest at Duke, out of over 400 people, over half of which were masters students. The competition involves working through a massive, noisy dataset from an industry partner to create actionable insights. You can read more about my project and results on my GitHub profile, which I have linked on my resume. This kind of experience is perfect for this role.

Beyond technical skills, I enjoy working with teams of people. At Duke, I help run the Philosophy Society as well as Effective Altruism: Duke. Effective Altruism is a social movement that aims to figure out how to maximize social good with limited resources and money. The purpose of our local chapter is to find students of all disciplines who are not only driven by excellence, but have a strong desire to help as many people as possible. We bring these people together to discuss the hard questions of how to do the most good, and how to plan careers accordingly (I am currently on the data science track as a result of evaluating the impact opportunities offered by various career paths). Please see my CV for my involvement in Effective Altruism, as I believe my involvement in this group speaks to my ambition and leadership.

Why Square?

Entrepreneurship is undersupplied, highly impactful, and not very replaceable—if you don't do it, there may not be anyone to take your place. Square helps lighten the load of getting a business off the ground, creating a multiplier effect that benefits all involved. Square is working in one of the most exciting industries right now, right at the intersection of data and entrepreneurship.

At this point in my career I'm trying to gain experience, meet mentors, and learn from other people; Square would be an incredible opportunity in that regard. I'm eager to learn about data science in industry and take a proactive role to help Square to develop products that will help democratize business.

With thanks,

Miles A. Turpin