

Gabriel F Miller
Erlangen, DE
24/7/2020

Dear Dr. Woollard,

I'm very interested in the Investment Analyst position currently offered at Scytale Investments. I believe my technical experience in data analysis, statistics and programming makes me a particularly strong candidate.

My background is originally in Mathematics (I received my Bachelor's from NYU in 2017) and am currently working towards a master's degree in Signal Processing and Communications Engineering at FAU Erlangen-Nurnberg in Germany. I'm now working on my master's thesis that I look to finish within the coming months.

While studying at FAU, I've had the privilege of working in the Multimedia and Communications lab as a research assistant where I've garnered experience collaborating with a team and learning how to methodically approach the exploration of a scientific topic. Projects entail discussing with an advisor concepts to explore, followed by a deep-dive into relevant literature, and a synthesis and reporting of findings. Based off of these findings, we adapt experiments and expand upon them. Through my work, I was awarded a grant to do research at Bar-Ilan University in Israel in early 2020 where I wrote a paper based off an algorithm we developed capable of detecting movement in a microphone array network based only off acoustic measurements.

As part of my master's program, students are encouraged to undertake projects in multiple disciplines. This past year for example, I worked at the Pattern Recognition lab at FAU for a project researching comprehensive and interpretable bio-markers used for the assessment of speech dysarthria in Parkinson's disease (PD) patients. We focused in particular on speech sound groupings that PD patients generally have problems uttering (e.g. 'plosive' utterances like \p\ which often sound more muted in people with PD). The paper was accepted for publication and presentation at the 2020 Text Speech and Dialogue international conference. The topic will be further explored in my master's thesis where we are now analyzing bio-markers using a deep-learning approach. The focus will be on the tradeoff between the temporal and frequency resolution of an audio signal and how it effects our classification ability.

In addition to the research experience I've recently accumulated, I also had hands-on experience with data analysis at Ai Media Group and Natixis Investment Managers. In both rolls my work involved aggregating, analyzing and synthesizing data (work was done mainly in R and SQL). Crafted reports were passed along to campaign strategy teams and upper management. Working at both companies provided me exceptional experience with data analysis in different fields and in a more corporate setting. It also helped develop skills in presenting material to people with a spectrum of knowledge backgrounds regarding the data and how it was prepared. This forced me to be able to customize information to a given audience's technical understanding yet also present the information in a way that was still comprehensive.

I hope for the opportunity to discuss my qualifications in more depth, as well as hear more about the roll. I look forward to your response in the time to come.

Sincerely,

Gabriel Figueiredo Miller