RYAN MCWHORTER

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Education

The University of Texas at Austin   Bachelor of Business Administration, Quantitative Finance   May 2022
Overall GPA: 3.0053
I have completed 105 credit hours, including 20 additional hours of
upper division mathematics.

Projects and Research

Sigmoid Technologies – *Co-founder;* Austin, TX   December 2019 – Present
Pre-seed startup focusing on medical imaging
- Designed and built an app with my cofounder which allows real time diagnosis of chest x-rays
- Trained convolutional neural networks similar to CheXNet
- Constructed a backend system on Firebase which authenticates users, uploads images, and processes image data
- Integrated and maintained a NoSQL database, which efficiently serves both our iOS app and cloud functions

Differential Geometry and Portfolio Theory   February 2020 – Present
- Investigated the application of modern differential geometry to financial risk measurement and classification alongside several professors
- Developed new ways of thinking about risk measures and methods of classifying arbitrage
- Synthesized a wealth of literature across fields as diverse as finance, statistics, and mathematical physics into comprehendible research

Leadership Experience and Activities

Texas USIT – *General Member*   Active Member
- Voted on various positions to take with USIT capital, alongside other general members.
- Attended secondary analyst group meetings, centered on learning the fundamentals of valuation
- Participated in annual Analyst Group Stock Pitch

Technical Qualifications

Programming and Development:
- Highly fluent: Python, Rust, focused on data gathering and manipulation
- Varying fluency: R, MatLab, Bash, and SQL
- I've developed applications on most operating systems, including Windows, Linux (Ubuntu), and MacOS.
- I also have experience in machine learning, in particular in image classification.
- I am familiar with Git, having hosted many personal things on GitHub and Sigmoid Technologies' codebase on GitLab

Mathematics:
- My mathematical education includes probability, linear algebra, vector calculus, differential equations, and real analysis. This includes ongoing education in complex analysis and algebraic structures.
- In addition to standard curricular courses, I have some degree of familiarity with differential geometry and multilinear algebra.

Computer Skills:
- I have extensive experience with Microsoft Excel and PowerPoint.

Additional Information About Me

Interests:
- I read frequently, and I have a reading list that can be found at rmcwhorter.github.io/reading.html.
- Most of my reading relates to finance, economic history, military history, and philosophy and sociology

Work Eligibility
- Eligible to work in the U.S. with no restrictions