

BRIAN FITZPATRICK

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EDUCATION

DUKE UNIVERSITY, The Fuqua School of Business

Durham, NC

Master of Business Administration

May 2025

Project Manager, 2024 Fuqua Client Consulting Practicum (Diligence and Go-To Mkt Strategy).

Axe-throwing competition champion.

UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

Charlotte, NC

Bachelor of Science in Mechanical Engineering,

May 2018

Bachelor of Science in Physics

Junior Design Project Lead on a five-student team in a robotics competition – Attained 2nd place with lowest cost.

Senior Design Co-lead on a multidisciplinary, eight-student team for a low-cost tooling analysis graduate research project – Demonstrated 96% cost reduction compared to industry standard.

Managed Back of House operations while bartending 30 hr./wk. Avid Intramural Sports player – 2018 Men's Soccer League Champion.

EXPERIENCE

FATHOM Sustainability R&D and product consulting firm

Charlotte, NC

Founder, CTO

2023 – Present, 2018 – 2022

- Conducted market research, product-market fit analysis, resource identification, and subsequent business plan formulation.
- Completed first principles modeling and experimental validation by creating bespoke simulation, data analysis, AI, and visualization tools using Python.
- Designed and built proof-of-concepts for: renewable energy transmission system, sustainable concrete production and logistics, sea water desalination, electrolysis-based hydrogen production, and consumer electronics.
- Spearheaded vetting and coordination of suppliers as well as performed supply-chain analysis, planning, and cost-reduction.
- Forecasted carbon reduction integration and carbon credit utilization potential through legislation due diligence.

CORNING INC. Industry leading glass manufacturer (Gorilla glass, Pyrex, Optical Fiber)

Charlotte, NC

Process Engineer, world's flagship optical fiber plant

2022 – 2023

- Chaired weekly interdepartmental huddles and full technical reviews to foster buy-in, develop KPIs, garner corporate resources, and align on production strategies for multi-quarter projects amidst a fast paced, 24/7 manufacturing environment.
- Initiated cost reduction and process efficiency projects, saving \$300k annually. Utilized Lean Six Sigma, Kaizen, A/B testing, automation, and data science building with SQL, Power BI, and Python.
- Optimized department data structures to better facilitate process tracking and communication of KPIs by reducing redundancy, standardizing database handshakes, and backfilling best practice documentation.
- Achieved 50% reduction in defect rate of plant's largest category of loss drivers. Defect was costing over \$65k in monthly losses resulting from lost product and grave, process-critical equipment damage and downtime. Drove root cause analysis and plant-wide contaminant audit, briefing engineering leadership on research and roadmap. Agile project management.
- Regained process control and further reduced specialty-product quality variance by 10% compared to prior stable benchmark. Customer-facing, special projects division serving semiconductor manufacturing industry. Refined process best practices and retrained operators.
- Reduced same specialty-product delivery deficit by 15% through strategic planning of constrained manufacturing resources, cultivating operator investment, and developing creative feedback mechanisms. Collaborated with business and engineering stakeholders both in and outside plant to develop data-driven product strategy for evolving business case.
- Consulted on process implementation and change management to external divisions.
- Partnered with other recent hires to standardize engineering training manual, streamlined operational readiness from 8 months down to 4 months-post onboarding.

ADDITIONAL INFORMATION

In my free time I love creating and learning, whether it be DIY renovation of my house in Charlotte, building furniture, or product and AI tool development in my home-lab.

I am an extraverted, collaboration-mined person who strives to build lasting connections through win-wins and open-minded communication.