

Torre Caparatta, Ph.D.

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Professional Summary

Data scientist with a Ph.D. in Computational Mathematics and experience in machine learning, predictive analytics, and AI-driven solutions. Skilled in Python, R, SQL, and cloud technologies, with a track record of driving cost-saving insights and collaborating across teams to deliver actionable business strategies

Work Experience

Statistician/Data Scientist

February 2026 - Present

UNC Health Care, ISD - Enterprise Analytics and Data Sciences

- Designs and develops enterprise-class, advanced analytic models to understand and solve complex business problems. Creates models by analyzing large data sets from various sources and processes.
- Establishes scalable, efficient, automated processes for large scale data analyses and model development, validation, and implementation.
- Develops and documents technical designs such as Entity-Relationship Diagrams (ERD), data flow diagrams, component diagrams, architecture design documents, etc.
- Drafts and presents analytic proposals, designs and solutions to client stakeholders crafted to address both recognized and unrecognized needs and opportunities that are grounded in domain knowledge.

Lecturer

August 2025 - Present

UNC Greensboro, Department of Mathematics and Statistics, Greensboro, NC

- Design and deliver comprehensive lesson plans and course materials for undergraduate level courses
- Contribute in developing new courses to enhance undergraduate understanding of mathematical topics

Data Scientist

May 2024 - January 2026

Old Dominion Freight Line, Operational Engineering and Technology, Thomasville, NC

- Collaborating with IT and Google Analytics teams to build a preventive maintenance model.
 - Built a truck rotational model in Python/SQL, reducing projected fleet costs by 40%.
 - Developed a mileage prediction model that uncovered \$14M in avoidable truck repair costs.
 - Validated business logic of new Special Routing tool pre/post-launch to ensure accurate automation.
 - Lead cross-team integration of Optym HaulPlan routing software, including BRDs and UAT testing.
 - Deliver executive dashboards and insights via Python and Qlik Sense visualizations.
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Skills

Python (Proficient) | R (Proficient) | Microsoft Azure (Proficient) | Microsoft Office Suite (Proficient) | SQL (Proficient) | Qlik Sense (Proficient) | WordPress (Proficient) | Julia (Competent) | Microsoft Power BI (Advanced Beginner) | Tableau (Advanced Beginner) | Photoshop (Advanced Beginner)

Education

The University of North Carolina at Greensboro (UNC Greensboro)

Ph.D. Computational Mathematics **GPA 3.66**

August 2019 - May 2024

Post-Baccalaureate Certificate (PBC) in Statistics

August 2019 - December 2023

M.A Mathematics **GPA 3.66**

August 2019 - December 2022

B.S. Mathematics **Minor** American Sign Language Deaf Studies **GPA 3.46**

August 2016 - May 2019

Certifications

- Clinical Data Model, Epic August 2026
- Cosmos for Data Scientist, Epic July 2026
- Microsoft Certified: Azure Data Scientist Associate, Microsoft June 2025