Michael McCarthy

Utah | [LinkedIn](#) | [Portfolio](#)

PORTFOLIO & PROJECTS - https://mcc450.github.io

- **Bellabeat** - Excel analysis of Fitbit user data. Excel Dashboard designed to give marketing and product recommendations.
- **Olympic Rowing Athlete Analysis** - Analyzed athlete data to answer long-held assumptions using SQL and Tableau.

WORK EXPERIENCE

Utah DHHS, DCFS   **Salt Lake City, UT**
Research Consultant II (Data Unit Co-Lead)   *June 2023 - Present*
- Enabled informed legislative decisions by producing real-time ad hoc analyses in PostgreSQL and dynamic dashboards in AWS Quicksight, empowering division directors and legislators with actionable insights to drive legislative decision-making.
- Streamlined data accessibility by engineering and implementing data storage protocols in full compliance with stringent state and federal regulations. These protocols not only ensured data security but also facilitated rapid access to vital information, enhancing operational efficiency for 500+ state employees.
- Took full ownership of the DCFS quarterly report, revamping it into a comprehensive and user-friendly tool. This report now serves as a pivotal resource for internal decision-making and external stakeholders, offering deep insights into the division's progress and performance.

South Davis Jr. High School   **Bountiful, UT**
Math Teacher   *August 2022 - May 2023*
- Analyzed performance data using Excel (pivot tables, power query, formulas, charts) to develop a department-wide ACT ASPIRE preparation program and monitor student performance.
- Improved homework completion and assessment scores for six classes by 27% and 8%, respectively, through a data-driven strategy that tracked student progress and optimized competition effectiveness using Excel.
- Maintained and analyzed performance records for large student populations using Excel (pivot tables, formulas, conditional formatting), demonstrating proficiency in data analysis and management.

Hillcrest High School   **Midvale, UT**
Math Teacher   *August 2019 - May 2022*
- Utilized Excel to analyze and track student performance resulting in a 14.5% outperformance of the 9th-grade average and a 7% increase in students reaching "Proficient" levels on state tests.
- Leveraged cross-functional collaboration skills to design and implement a data-driven Math course for 50+ refugee and immigrant students. Used concepts to create English and Science courses after successful implementation.
- Secondary Math 1 Curriculum Team Leader 2021-2022. Directed development and application of curriculum to increase overall student achievement with 6 educators.
- Nominated for 2020-2021 Hillcrest High School Teacher of the Year as a 2nd-year teacher.

EDUCATION & CERTIFICATIONS

Georgia Institute of Technology   **Atlanta, GA**
MS Analytics   *2023 - Present*
- Machine Learning | Statistics | Optimization | Advanced Modeling Techniques
- Python | R | SQL

Villanova University   **Villanova, PA**
B.S. Mathematics   *2017*
- Research in Cryptanalysis & Financial Derivatives Modeling.
- 4-year member, recruiter, and lead fundraiser of the Villanova University Men's Rowing Team.

Towson University   **Towson, MD**
M.A. Teaching   *2019*

SKILLS

Skills: SQL | Statistics | Excel | Tableau | AWS Quicksight | Python (developing) | R (developing) | Spanish (Intermediate)