William Rodman

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EDUCATION

TULANE UNIVERSITY | SCHOOL OF SCIENCE AND ENGINEERING — New Orleans, LA
Bachelor of Science Majors: Computer Science, Mathematics Minor: Economics — August 2020 – May 2024
Computer Science GPA: 3.7/4.0 Overall GPA: 3.2/4.0

- Department of Computer Science Honors Thesis Scholar
- Fall 2023 Algorithms Teaching Assistant
- Relevant Coursework: Probability Theory, Statistical Inference, Linear Models, Stochastic Processes, Algorithms, Machine Learning, Data Visualization, Data Science, Microeconomics, Macroeconomics, Game Theory, Financial Accounting

EXPERIENCE

PRICEWATERHOUSECOOPERS LLP — New York, NY
Cloud and Digital Engineering Intern — June 2023 – August 2023

- Analyzed insurance companies' customer data sources to create new customer onboarding key performance indicators.
- Conducted analysis by structuring data into Pandas DataFrames then visualizing key performance indicators using Matplotlib.
- Presented insurance company client project at the nationwide Cloud and Digital Intern conference in New York City.
- Organized in-person networking event for 50 New York City interns working in the Cloud and Digital consulting practice.

TULANE UNIVERSITY DEPARTMENT OF COMPUTER SCIENCE — New Orleans, LA
Research Assistant — May 2021 – August 2023

- Paid research assistant funded by a $473k National Science Foundation grant focused on researching algorithms capable of visualizing large GPS trajectory and road network datasets.
- Worked on team of over eight researchers from Tulane University, Saint Louis University, and Michigan State University.
- Published two open-source libraries and papers that visualize the performance of geometric graph-matching algorithms when applied to road networks.

PRICEWATERHOUSECOOPERS LLP — Washington, DC
Consulting Solutions Intern — June 2022 – July 2022

- Attended consulting and leadership workshops during national internship training in Orlando, Florida.
- Used Alteryx, and Microsoft Excel to conduct user demographic data analysis for client's online crowdsourcing platform.
- Collaborated with intern team to create a final deliverable including a slide deck, demographic report, and Power BI dashboard.

PROJECTS

COMPUTER SCIENCE HONORS THESIS — August 2024

- Applied a geometric graph distance to the k-Nearest Neighbors model to address geometric graph classification challenges.
- Developed a Python library to compute geometric graph distances and custom k-Nearest Neighbors algorithms.
- Secured the Chair of the Computer Science Department as thesis advisor; received direct feedback during bi-weekly meetings.
- Delivered an oral defense to a cohort of faculty from the Departments of Computer Science and Mathematics.

BOND HEARING PREDICTIVE MODEL — August 2024

- Joined a professor and student in a project partnership with the Orleans Criminal District Court watchdog organization.
- Used regular expressions and feature clustering techniques to train a Support Vector Regression model to predict bond values.
- Presented the project board at the Tulane Research, Innovation, and Creativity Summit.

OPEC CRUDE OIL PRODUCTION QUOTA ANALYSIS — December 2023

- Analyzed the impact of individual OPEC members' deviation from crude oil quotas on aggregate oil supply from 1960 - 2022.
- Leveraged six OPEC datasets and Python libraries (pandas, scikit-learn, matplotlib) for time series analysis.
- Trained a Random Forest regression model to predict OPEC members' overproduction percentage for a fiscal year.

SKILLS AND CERTIFICATIONS

Communication Skills: Leading Team Meetings, Articulating Technical Concepts, Delivering Engaging Presentations
Programming Skills: Python, R, JavaScript, SQL, Matplotlib, Pandas, NumPy, Scikit-learn
Software Tools: Git, Docker, Visual Studio Code, Microsoft Excel, STATA
Certifications: Microsoft Office Specialist: Excel Associate