

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.
- Assisted a 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 package 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 capstone project in partnership with an Orleans Parish 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