Martin Thomas Durkin, M.S.

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PROFESSIONAL SUMMARY

Data Scientist with experience building real-world solutions with an extensive background in computer science. Proficient in essential programming languages including Python and SQL and accomplished in building predictive models, processing data, and implementing machine learning algorithms. Excels in collaborative environments while also having the ability to tackle challenging problems independently.

EDUCATION

University of Rochester — Rochester, NY
Master of Science in Data Science — Class of Fall 2022
GPA: 3.79/4.0

Rensselaer Polytechnic Institute — Troy, NY
Bachelor of Science in Computer Science — Class of 2021
GPA: 3.54/4.0

TECHNICAL SKILLS

Programming Languages: Python (PyTorch, PySpark, Pandas, NumPy, Matplotlib, SciKit-Learn), Bash, C, C++, C#, Java, R, SQL, Visual Basic
Web Development: Blazor, CSS, HTML, .NET Framework, PostgreSQL
Other: Linux Ubuntu, Git, Confluence, Jira, Jupyter Notebook, Azure Databricks
Certifications: Databricks Data Engineer Associate

PROFESSIONAL EXPERIENCE

Harris School Solutions – Research and Development Intern — January 2020 – October 2021

- Engaged in an Agile workflow to modernize the BOCES module providing a better user experience over the legacy WinCap application, which manages contracts, shared programs, and services used by school districts.
- Successfully implemented the entire *Actual Use Bill Schedule* financial management module, using Blazor, C#, and Harris' Cheyenne Framework, allowing clients to efficiently issue, process, and post bills.
- Participated in comprehensive code reviews and maintained open communication with QA, advantageously accelerating the rollout of new features to beta users.
- Utilized Jira to manage bi-weekly sprint tasks and prioritize backlog items in collaboration with the Product Owner.

NASA Capstone Researcher 🖇 https://tinyurl.com/bdh64sds — Fall 2022

- Successfully collaborated with NASA Data Scientists, experts from Coral Vita, and fellow researchers effectively building a machine learning pipeline using Python to determine coral presence and bleaching levels allowing for more enhanced large-scale coral farming.
- Meticulously constructed a balanced dataset consisting of 31 NASA satellite features plus an additional 21 features were engineered to further enhance the model's capability of correctly identifying moderate/severely bleached coral.
- Trained a reliable model for detecting coral presence at a specific location and date, resulting in an overall accuracy of 91%.

PROJECTS

Classification of Cancer Discussion Posts 🖇 https://tinyurl.com/fua6ub4n — Fall 2022

A comparative study of deep learning models, collaborating with a partner, to correctly identify the cancer a patient has, as a means to creating a more streamlined process when making a post on the Cancer Survivors Network website.

- Scraped data using Beautiful Soup resulting in over 100,000 total posts and 13 unique classes.
- Used PyTorch to create and train efficient deep learning models and determined that a stacked model consisting of a Bi-LSTM and transformer encoder provided the best results at nearly 71%.

Trending Research Topics 🖇 https://tinyurl.com/2hk282rx — Fall 2021

A research project with the goal of identifying trends in Computer Science research from R1 universities by applying LDA and BERT topic modeling techniques on a Dimensions.ai dataset consisting of over 51,000 grants from 131 universities.

- Data was cleaned using numerous NLP techniques in order for the models to create distinctive and identifiable topics.
- Developed models tailored to the University of Rochester, seeing a research shift towards lasers, cancer treatment, and
- psychology.