

Tomás Ortega Rojas

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EDUCATION

- New York University**, Graduate School of Arts and Science, New York, NY May 2022
Master of Science in Computer and Information Sciences, GPA: 3.88/4.0
Relevant Coursework: DevOps and Agile Methodologies
- Florida International University**, School of Computing and Information Sciences, Miami, FL May 2019
Bachelor of Science in Computer Science, GPA: 3.84/4.0
Relevant Coursework: Software Engineering

TECHNICAL SKILLS

Programming Languages: Proficient in Java, Python, C/C++, JavaScript and SQL — Familiar with Matlab and PHP
Libraries and Frameworks: Flask, Pandas, Numpy, Pytorch, Keras, Plotly, ScikitLearn, Hadoop, Spark
Tools: Bash, Git, VirtualBox, Docker, PostgreSQL, MongoDB, Amazon AWS, L^AT_EX

PROJECTS

- Ray Tracer (C++, Eigen)** Aug 2021 - Dec 2021
Application for rendering 3D meshes and primitive objects such as spheres and rectangles using ray tracing
 - Implemented the ray tracing algorithm from scratch using c++ and Eigen (library for linear algebra).
 - Applied an optimization algorithm called AABB Trees to accelerate the rendering of 3D triangle meshes. This dramatically improved the rendering speed for large 3D meshes
- Phishing Website Detection (Python, Scikit-Learn, Web Crawling)** Jan 2021 - June 2021
Command Line Application that determines if a website is malicious or not using machine learning.
 - Created a web crawler using python to extract information from a collection of 100,000 websites.
 - Trained machine learning algorithms for classifying websites as malicious or legitimate, achieving an accuracy of 95%
- Data Science Workflow Manager (Python, Plotly, Flask)** Jan 2019 - May 2019
Web application for building and automating data science pipelines.
 - Designed and Implemented the UX/UI using HTML, CSS and, JS along Plotly for data visualizations.
 - Collaborated with a team of graduate students and developed tools to automate data cleaning, passing data to models and visualizing the results.
- GeekText (ReactJS, JavaScript, Flask)** January 2017 - April 2017
Web application where users can browse, and purchase books.
 - Developed an API using python and Flask to process the product information and get data from the database.
 - Created a React component for displaying information about a selected book along with its rating, and comments.
 - Collaborated in a team of 5 and applied software engineering principles along with the scrum agile methodology to complete the project.
- Bacon Number Calculator (Java)** Jan 2017 - April 2017
Command line application that gets the bacon number (number of vertices needed to link two actors).
 - Developed graph algorithms to efficiently find the distance between any two actors in the IMDB database.

EXPERIENCE

- Freelancing & Volunteering** Jun 2020 - Present
New York City, New York, NY
 - Worked directly with clients documenting requirements, and developing websites for e-commerce and blogging.
- Web Developer Intern** Aug 2019 - Jun 2020
GBP Solutions, Miami, FL
 - Implemented web scrapers using Python, BeautifulSoup and Selenium to get real estate data from multiple sources.
 - Worked on a web application using Python, Flask, and PostgreSQL for statistical analysis of real state data.
 - Developed application to find properties with similar characteristics in a specific geographic location within a specified radius using PostGIS.
- Programming I and II Tutor** Aug 2018 - Dec 2018
Florida International University, Miami, FL
 - Analyzed and debugged code with students to provide feedback.
 - Applied strong communication skills and problem-solving techniques working with students through programming exercises.