Juan Diego Dumez

857-277-4586 | dumezgarcia.j@northeastern.edu | linkedin.com/in/jdumezg | github.com/jdumez10

EDUCATION

Northeastern University, Khoury College of Computer Sciences — Boston, MA
Master of Science in Computer Science **GPA:** 4.0/4.0 — *Sep 2022 – May 2025*

Universidad de America — Bogota, COL
Bachelor of Science in Petroleum Engineering **GPA:** 4.59/5.0 (92%) — *Jul 2013 – Nov 2019*

Universidad de los Andes — Bogota, COL
Bachelor of Science in Geosciences **GPA:** 4.52/5.0 (90%) — *Jul 2014 – Jul 2019*

Relevant Coursework: Discrete Structures, Object Oriented Design, Data Structures and Algorithms, Algorithms, Database Management Systems, Web Development, Modeling & Numerical Analysis

Awards: Khoury Research Apprenticeship, Colfuturo Scholarship, First Place PetroBowl Championship, Ramon de Zubiria Distinction, Academical Excellence Distinction

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Java, JavaScript, HTML, CSS, MATLAB, SQL, R, VBA
Technologies: React, Node.js, Express.js, jQuery, Redux, Bootstrap, MongoDB, MySQL, Spring, Spark, Hadoop
Tools: Git/GitHub, PowerBI, Tableau, JIRA, Visual Studio, PyCharm, IntelliJ, Microsoft Office
Libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, PyTorch, PySpark, TensorFlow

EXPERIENCE

Northeastern University - Khoury Research Apprentice — Sep 2023 – Present
Interactive Petabyte Scale Applications — *Boston, MA*
- Enhanced the NeRF pipeline scalability using commercial clouds, optimizing real-time geospatial data access and alignment algorithms for improved interactive petabyte-scale applications

Northeastern University - Graduate Teaching Assistant - Head TA — Jan 2023 – Present
Discrete Structures (CS5002) — *Boston, MA*
- Holding office hours in a one by one group settings for reviewing course content and answering students' questions
- Assisted professor to manage logistics for the course, grading exams and students' homework for 100+ students
- Promoted as the head TA for Fall 2023, responsible for overseeing the team of 9 TAs and coordinating their tasks

Drummond Energy - Petrophysicist (Data Scientist) — Scrum Master — Mar 2020 – Jul 2022
Petrophysicist (May 2022 - July 2022) — Jr Petrophysicist (Mar 2020 – Apr 2022) — *Bogota, COL*
- Reduced costs and time by developing ML models for predicting sonic well logs and rock classification, eliminating the need for expensive tools and decreasing rock classification time by 50%
- Improved collaboration by implementing a SharePoint website for sharing department's products and serving as a repository for key deliverables
- Enhanced subsurface data management by creating and updating databases for Cesar-Rancheria Basin wells and analyzing them using PowerBI, enabling informed decisions for future well data acquisition
- Provided Agile project management support as a Scrum Master for a team of 11 contributors, implementing Agile Methodologies

PROJECTS

COVID-19 positive cases analysis in Colombia | *Python3, Pandas, Seaborn, SciPy* — May 2023
- Accomplished a comprehensive analysis of COVID-19 cases in Colombia by exploring correlations between mortality rates, regions, and ethnic groups

Sonic Well Logs Prediction | *Python3, PySpark, Pandas, Matplotlib, Seaborn, Plotly* — Jan 2022
- Accomplished precise prediction of P and S wave transit times in wells using supervised machine learning models, showcasing the transformative impact of ML in Oil & Gas subsurface resource characterization.

Rock Type Classification and Properties Prediction | *Python3, Pandas, Seaborn, Plotly, scikit-learn* — Nov 2021
- Accomplished enhanced rock typing classification and prediction of diverse rock properties using supervised and unsupervised ML models, leading to a comprehensive understanding of rock types