

Juan Diego Dumez

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EDUCATION

Northeastern University, Khoury College of Computer Sciences

Boston, MA

Master of Science in Computer Science GPA: 4.0/4.0

Sep 2022 – Dec 2024

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: Reservoir Simulation, Modeling & Numerical Analysis, Algorithms, Database Management Systems, Web Development, Foundations of AI, Machine Learning

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

TECHNICAL SKILLS

Programming Languages: Python, SQL, C/C++, Java, JavaScript, MATLAB, HTML, CSS, R, VBA

Technologies: React, Node.js, Express.js, jQuery, Redux, Bootstrap, MongoDB, MySQL, Spring, Spark, Hadoop

Tools: Git/GitHub, PowerBI, Tableau, JIRA, Visual Studio, VS Code, PyCharm, IntelliJ, Microsoft Office

AI/ML Frameworks: Scikit-learn, PyTorch, PySpark, TensorFlow

Reservoir Engineering Software & Tools: CMG, Petrel, Interactive Petrophysics, Techlog, FracMan

EXPERIENCE

Software Engineer - Color Image Scientist Co-Op

Jan 2024 – August 2024

E Ink Corporation

Billerica, MA

- Developed an internal web application to optimize ePaper panel development, reducing development time by 30%.
- Debugged and configured ePaper demo unit software drivers using Python and MVC methodology, improving performance by 25%
- Developed a standalone software application with a custom GUI for color measurement and waveform analysis, reducing setup time by 30%

Khoury Research Apprentice

Sep 2023 – Dec 2023

Northeastern University

Boston, MA

- Developed and maintained the 3DSceneGraph-API using Neo4j, GraphQL, and Apollo Server, enabling advanced 3D scene analysis and data manipulation for urban development and virtual navigation applications

Petrophysicist (Data Scientist) — Scrum Master

Mar 2020 – Jul 2022

Drummond Energy

Bogota, COL

- Reduced costs by 30% and rock classification time by 50% by developing ML models in Python for predicting sonic well logs and rock classification, eliminating the need for expensive tools
- Enhanced subsurface data management for various reservoirs, improving data accessibility by 35% through SQL/NoSQL databases and Python
- Assisted on fracture modeling with FracMan and Petrel, improving reservoir simulation and resource estimation
- Led Agile practices as Scrum Master for a team of 11 contributors, improving project efficiency and collaboration

PROJECTS

Quiz App | *React, Node.js, MongoDB, Express.js*

- Developed a full-stack quiz website with JWT and Passport.js authentication and group sharing, promoting technical interview preparation and knowledge improvement

Sonic Well Logs Prediction | *Python3, PySpark, Pandas, Matplotlib, Seaborn, Plotly*

- Achieved precise prediction of P and S wave transit times in wells using supervised machine learning models, showcasing the transformative impact of ML and AI in Oil & Gas subsurface resource characterization.

Rock Type Classification and Properties Prediction | *Python3, Pandas, Seaborn, Plotly, scikit-learn*

- 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