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 – May 2025*

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

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

Coursework: Algorithms, Database Management Systems, Web Development, Modeling & Numerical Analysis
Awards: Khoury Research Apprenticeship, Colfuturo Scholarship, Ramon de Zubiria 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, VS Code, PyCharm, IntelliJ, Microsoft Office
Libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, PyTorch, PySpark, TensorFlow

EXPERIENCE

Software Engineer - Color Image Scientist Co-Op — Jan 2023 – Present
E Ink Corporation — *Billerica, MA*

- Developed and maintained an internal web application using Flask, Django, and Dash to optimize ePaper panel development, reducing development time by 30%
- Debugged and configured ePaper demo units software driver using Python and MVC methodology, improving performance by 25%
- Enhanced reliability of ePaper demo units by implementing robust testing procedures, resulting in a 30% reduction in downtime and troubleshooting
- Developed a standalone software application with a custom GUI for efficient ePaper demo unit control, reducing setup time by 40%

Khoury Research Apprentice — Sep 2023 – Present
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 decreased rock classification time by 50% by developing ML models for predicting sonic well logs and rock classification
- Improved collaboration by implementing a SharePoint website, increasing accessibility to key deliverables by 40%
- Enhanced subsurface data management by creating and updating databases using SQL and NoSQL databases, and analyzing data using PowerBI, improving data accessibility by 35%
- Provided Agile project management support as a Scrum Master for a team of 11 contributors

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

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

Animated Photo Album Shapes | *Java, Swing, GUI, HTML*

- Created a dynamic photo album using Java Swing GUI. Applied design patterns and MVC methodology to efficiently manage and display images