

Nicolás Vidal Duque

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Personal Statement

Industrial Engineer, bilingual, with a minor in computer science and research projects. This has allowed me to develop a strong technical foundation. My primary goal is to apply my skills to the world of web development and become a Full Stack professional. I'm excited about the prospect of designing and creating innovative and engaging web applications that enhance the user experience. My dedication to problem-solving and attention to detail drives me to tackle web development challenges with creativity and precision. Additionally, my effective communication abilities in both English and Spanish enable me to collaborate efficiently in multidisciplinary teams. I am committed to continuous learning and eager to contribute to the exciting field of web development.

Work Experience

Ericsson

Position: IT Intern - Data Analyst

06/2023 - 12/2023

Responsibilities

- Developed and maintained Power Automate flows for efficient data extraction, processing, and modeling.
- Employed Python for web scraping, data cleaning, mining, and processing.
- Designed and managed SQL databases for optimized data storage and retrieval.
- Created RESTful APIs using Flask and deployed them via Docker and Kubernetes.
- Proficiently cleaned and processed data using SQL.
- Designed VBA macros and interfaces to streamline data collection and processing.
- Leveraged Power BI for data processing, KPI calculation, and dashboard design to support managerial decision-making.

Javeriana University

Position: Project leader in applied metaheuristics for *Timetabling*

03/2022 - Currently

Responsibilities

- Design a mixed integer linear programming model and metaheuristic for the scheduling of university courses.
- Evaluate and adapt algorithms for the development of applied course timetabling metaheuristics.
- Collect and manage data in SQL databases.
- Follow up and review current work methods for the scheduling and logistics of semester classes.
- Investigate and analyze historical information as a design basis.

Achievements

- Implemented a semestral scheduling system that finds optimum-neighbor solutions.
- Applied iterative local search and graph coloring algorithms for class scheduling.
- Achieved a 99.3% improvement corresponding to the semester planning time: the previous method took 4800 minutes; with the new semi-annual planning system it went to 30 minutes.

Javeriana University

Position: Academic Monitor for Engineering Research

02/2021 - 12/2021

Responsibilities

- Support students in the subject of engineering research.
- Evaluate and design semester academic plans for the development of the subject.

- Improve the academic material of the subject.
- Monitor class performance and identify students who require additional information.

Formal Education

Undergraduate: Industrial Engineering, Pontificia Universidad Javeriana 2019 – 2024

Bilingual Academic Bachelor, Jefferson School 2006 – 2018

Professional updating

- Applied Statistics and Data Science International Workshop, Technological University of Bolivar 2022
- Equipment for work, Pontificia Universidad Javeriana 2022
- SCRUM foundation professional certificate SFPC, CertiProf 2022
- Management for Beginners, Project Management Institute 2022
- Training of CEA teaching support monitors, Pontificia Universidad Javeriana 2021
- Extraordinary Leadership, Diploma Coomeva 2019

Acknowledgments

- **International scholarship to participate in the "Applied Statistics and Data Science International Workshop"**
Bolívar Technological University, 2022
- **Member of SEIN3 Industrial Engineering Research seedbed**
Javeriana University, 2022
- **Academic Excellence Scholarship, for the Industrial Engineering program**
Javeriana University, 2020
- **Wushu (Kung Fu) National Runner-up**
Colombian Wushu Federation, 2022
- **Outstanding Wushu (Kung Fu) Athlete**
Pontifical Javeriana University, 2022

Professional skills

- Data analysis (TensorFlow, Pandas, Matplotlib, NumPy, R, SQL and NoSQL databases, Python, PowerBi, analytical statistics and probability)
- Data mining
- Optimization and mathematical modeling (AMPL, Solver, VBA and macros in Excel)
- Scheduling and Timetabling
- Full Stack Development (React, HTML, CSS, Bootstrap, JavaScript, NodeJs, Python, PHP, C, C++)
- Advanced Excel

Languages

- Spanish - Native
- English - C1