

IÑIGO DE LA MAZA

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A responsible, hard-working, adaptable and very motivated industrial engineer with a strong interest in data science, artificial intelligence and machine learning; proven abilities to work independently and under high pressure; passion for problem solving and constant personal growth.

EDUCATION

Massachusetts Institute of Technology (MIT)

Visiting student

February 2019 - Present

Cambridge, MA

- Master Thesis at IMES: “*Tailoring Systems Pharmacology through Computational Models*”
- MIT 15.095 - *Machine Learning Under a Modern Optimization Lens* (auditing) (Prof. Dimitris Bertsimas)
 - Convex, robust and mixed integer optimization in machine learning
 - Course capstone on predicting children performance in educational game apps
- MIT 2.98 - *Sports Technology: Engineering & Innovation* (Prof. Anette (Peko) Hosoi & Christina Chase)
 - Participated in a data science project for an international sport industry organization in team of seven
 - Roles: sub-team leader, developed an event detection and classification model

EAE Business School

Candidate for Online MBA

September 2018 - Present

Barcelona, Spain

- 1-year distance learning program
- Relevant coursework: Control Management, Managerial Skills, Accounting

Technical University of Catalonia (UPC)

Candidate for MS in Industrial Engineering

September 2017 - Present

Barcelona, Spain

- Minor in Biomedical Engineering | 2-year program | GPA: 3.60 | 3 courses with honors
- Relevant coursework: Modelling and Simulation of Biomedical Systems, Technological Innovation, Industrial Scheduling, Process Control, Transports

Technical University of Darmstadt

Visiting Student

March 2017 - August 2017

Darmstadt, Germany

- Bachelor Thesis at PTW: “*Potential analysis and pre-design of an additive manufactured floating bearing bushing for motor spindle drives*”

Public University of Navarre (UPNA)

BS in Industrial Engineering

September 2013 - August 2017

Pamplona, Spain

- Minor in Mechanical Engineering | 4-year program | GPA: 3.45 | 4 courses with honors
- Relevant coursework: Statistics, Control Theory, Numerical Methods, Advanced Physics

RESEARCH EXPERIENCE

MIT Clinical Research Center

Research Affiliate

February 2019 - Present

Cambridge, MA

- Under the supervision of Prof. Elazer Edelman and Dr. Kumaran Kolandaivelu
- Used systems biology mathematical modeling, data science, computational statistics, ML and precision medicine approaches in cardiovascular-related biomedical projects
- Developed a mathematical model of blood coagulation under flow conditions
- Designed, manufactured and tested microfluidic devices for blood clotting experiments

Research Center for Biomedical Engineering (CREB) @ UPC

Research Intern

February 2018 - February 2019

Barcelona, Spain

- Led biomechanics research project with industry partners (NISSAN, Melegny Automotive) about the use of industrial exoskeletons in car manufacturing assembly lines (press coverage: [1,2,3](#))
- Proved that the use of exoskeletons in the automotive sector can reduce the muscular effort of workers by up to 60%, directly impacting local regulatory policies
- Roles: project management, experiment design, in-situ data collection, data pipeline implementation and experimental outcomes analysis
- Publications: Claramunt-Molet, M., de la Maza, I., et al. (2019): Biomechanical evaluation of upper limb exoskeletons in automotive assembly using EMG. *IX Meeting of the Spanish Chapter of the European Society of Biomechanics*

RELEVANT PROJECTS/COURSES

Data Science projects	2019 Data Science Bowl Kaggle <i>(ongoing)</i> <ul style="list-style-type: none">· Prediction of children performance in educational game apps· Used Optimal Classification Trees (OCT), mixed integer optimization, holistic and robust regression· Roles: feature engineering and optimization models development
Certifications (MOOCs)	Data Science Professional Certificate IBM (9 courses) <ul style="list-style-type: none">· Databases and SQL, Python for data analysis, data visualization and AI, ... Machine Learning Stanford University <ul style="list-style-type: none">· Neural Networks, dimensionality reduction, anomaly detection, recommender syst. Business and Financial Modeling Specialization Wharton, UPenn (5 courses) <ul style="list-style-type: none">· Quantitative modeling, modeling risk and realities, model-based decision making ML & Reinforcement Learning in Finance NYU Tandon (4 courses) <i>(ongoing)</i> <ul style="list-style-type: none">· Algorithmic trading, Markov Decision Process models, Cryptocurrencies, ... Data Analytics in Finance U. of Illinois at Urbana-Champaign <i>(ongoing)</i>
Competitions	2019 Harvard/MIT Business Case Competition <ul style="list-style-type: none">· Created a strategic business plan for a real client (bioprinting firm) over two weeks· Role: 3D bioprinting market data analysis, projected market sizing and business model definition 2019 MIT Hacking Medicine 2nd Place <ul style="list-style-type: none">· Developed a low-cost device for applying Negative Wound Pressure Therapy and focused on making it accessible for developing countries

LEADERSHIP EXPERIENCE

MIT Rugby <i>Executive Committee Member</i>	August 2019 - Present <i>Cambridge, MA</i>
<ul style="list-style-type: none">· Organized recruitment, budget control and club's events scheduling	
NGO Kutembea Na Tanzania <i>International Volunteer</i>	August 2018 - September 2018 <i>Arusha, Tanzania</i>
<ul style="list-style-type: none">· Led an intercultural team of five to build a school for local children· Designed a renewable energy based electrical system for the project	
Cardenal Larraona High School <i>Volunteer Teacher</i>	October 2013 - June 2015 <i>Pamplona, Spain</i>
<ul style="list-style-type: none">· Taught mathematics and physics to children with low academic performance	

SKILLS

IT	Python (Pandas, Keras, Sci-Kit,...), Julia (DifferentialEqs, JuMP, Gurobi), SQL , TensorFlow , Google Cloud Suite , Tableau , MatLab , LaTeX
Languages	Spanish (Native), English (Fluent), German (Advanced), French (Medium)