

IÑIGO MARTÍNEZ LÓPEZ

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EXPERIENCE

MIT Media Lab – Massachusetts Institute of Technology

CAMBRIDGE, MA, USA

Changing Places Group, PEV (Persuasive Electric Vehicle) Project

Sep. 2016 - Present

- Lead mechanical engineering design of an active tilting system for a three wheeler vehicle.
- Combination of a robust control strategy and a simple front suspension design, the purpose of tilting of this three wheeler vehicle is to enhance the user's experience, increase the stability in the curves and minimize the perceived acceleration by the driver.

NEM Solutions

SAN SEBASTIÁN, SPAIN

Data Analysis – Wind turbine monitoring and failure prediction

Jun. 2016 - Aug. 2016

- Research + definition of failure indicators, by means of statistical analysis and similar behaviour of different wind turbines in a wind farm.
- Study of the failure prediction quality of techniques based on the operation of the wind farm as an entity, comparing one variable for the different wind turbines, and indicating as anomalous the wind turbines that divert from the normal behaviour of the wind farm.

CEIT – IK4 Research Alliance

SAN SEBASTIÁN, SPAIN

Biomedical Engineering - Bioinformatics Department Intern

Jun. 2015 - Aug. 2015

- Computational Cancer Biology: Find predictive biomarkers in breast cancer using Supervised Classification and Neural Nets.
- Statistical analysis training. Numerous machine learning techniques applied: RF, SVM, PCA, LDA, SOM, MP.

Tecnun SEED Racing Formula Student Electric Team

SAN SEBASTIÁN, SPAIN

Head of Chassis Area

Sep. 2014 – Jun. 2016

- Management of the chassis team, embracing frame design, driver ergonomics and safety sections.
- Responsible of the mechanical design and development of two Formula Student space frame chassis: TSR14 & TSR15.
- Creation of a CAD Model in PTC Creo Parametric, carrying out Finite Elements Analysis (FEA) in the frame.

CIC nanoGUNE – Nanoscience Cooperative Research Center

SAN SEBASTIÁN, SPAIN

Nanomagnetism Group - Student Intern

Jul. 2014 – Sep. 2014

- Study of the structural and magneto-optical properties of cobalt thin films with varying interatomic distances.
- Epitaxial growth of the Co films with Ultra High Vacuum Sputter Deposition, following the layer-by layer technique.
- Post-deposition structural characterization with X-ray diffraction technique, enabling the control of these new materials.
- Analysis of the optical and magneto-optical properties, measured with Generalized Magneto-Optical Ellipsometry.

CEIT – IK4 Research Alliance

SAN SEBASTIÁN, SPAIN

Applied Mechanics Department – Student Intern

Sep. 2012 - May. 2014

- Fatigue strength testing for 'butterfly' type valve, used in train shock absorbers. Design and fabrication of the test bench.
- Control of the servomotor with Single-Board RIO Controller and LabVIEW.

University of Navarra – Tecnun School of Engineering

SAN SEBASTIÁN, SPAIN

Student assistant in the Introductory Tecnun Course

Aug. 2012 & 2013

- Collaboration and support for newcomers on basic concepts of mathematics.

Robotics Summer Course in Tecnun

Jun. 2012

- Design and manufacturing of robots with Lego Technic and PIC microcontrollers.

EDUCATION

Massachusetts Institute of Technology - MIT

CAMBRIDGE, MA, USA

Media Lab – Visiting Student

Sep. 2016 - Present

- Project oriented hands-on approach to learning engineering concepts and design. Emphasized in innovation and group work on open-ended engineering projects, within an entrepreneurial environment

University of Navarra – Tecnun School of Engineering

SAN SEBASTIÁN, SPAIN

Master of Science in Industrial Engineering

Sep. 2015 – Present

- GPA: 9,34 / 10 ; 3,25 / 4 (top 5%)
- Relevant Coursework: Hydraulic and Thermal Machines, Business Administration and Projects, Operations Management, Design and Testing Machines, People Management, Industrial Processes, Industrial Electronics, Industrialization of Construction, Structural Design, Industrial Facilities, Automated Manufacturing Systems and Industrial Robotics.

Bachelor of Science in Industrial Technologies

Sep. 2011 - May. 2015

- GPA: 9,47 / 10 ; 3,61 / 4 . (1st of the promotion, Finished with Honors)
- Relevant Coursework: Mathematics, Physics, Chemistry, Computer Science, Mechanics, Control Systems, Strength of Materials, Materials Science, Thermodynamics, Heat Transfer, Fluid Mechanics, CAD, Machine Component Design, Modeling and Simulation, Operations Research, Electric Systems, Power Electronics, Environmental Technologies.

EDUCATION

Sagrado Corazón Mundaiz School

Scientific Technical Bacalaureate

SAN SEBASTIÁN, SPAIN

Sep. 2009 - Jun. 2011

- Diploma with Honor Distinction. Top student of the class. Bacalaureate global GPA: 9,85 / 10

Music and Dance San Sebastian Conservatory

Clarinet and Music Studies

SAN SEBASTIÁN, SPAIN

2004 -2014

- Part of the wind ensemble of the music academy.

SKILLS

<i>Programming</i>	Python, C++, MySQL, HTML, CSS, Javascript
<i>Multimedia and design</i>	SolidWorks, PTC Creo, SketchUp, AutoCAD, Photoshop, Illustrator, After Effects, Premiere
<i>Libraries and platforms</i>	Matlab, Simulink, Arduino, R, Processing, LabVIEW, Minitab, Microsoft Office
<i>Fabrication</i>	Laser cutter, Water Jet, 3D Printing (Ultimaker, Formlabs, Stratasys), CNC machines
<i>Simulation</i>	ANSYS, CYPE, EES

LANGUAGES

English: Advanced professional proficiency: Fluent in speaking, writing and reading. Certificate in Advanced English (C1, March 2015)

Spanish: Native language

Basque: Native language

RECOGNITIONS AND ACADEMIC COLLABORATIONS

KutxaBank Award for Academic Excellence: Prize awarded to the most outstanding graduates in Guipuzcoa (Spain).

University of Navarra Award with Special Distinction: Awarded with the best academic record in my B.S.

Santander Grant: Prestigious scholarship awarded by Spain's leading savings bank given to contribute to the improvement of the scientific and technological level of the country through Master studies. Only awarded in my Master program. (2015)

HackMIT Best Use of Firebase: Collaborated with 3 other team members from different universities to create a web platform that helps people collaborate to find missing persons using React JS and Firebase. Won "Best Use of Firebase" award by Firebase/Google team.

Student Body Representative: Liaison between student and Tecnum government representatives. Negotiation and defense of student interest. Elected by absolute majority. (2016)

Tecnum-Gaztempres Award in 'Tecnum Ingenio y Diseño' Univesidad de Navarra Competition 2011

Teaching Assistant: University teaching assistant in Strength of Materials II, guiding practices with CYPE software (Prof. Aitziber López) and in Electric Systems, helping in electric motors and systems labs (Prof. Luis Fontán). (2013-2014)

VOLUNTEERING

PAPI's Conference Volunteer: Registration + Live Tweeting

PAPIs is the International Conference on Predictive Applications and APIs. It features tutorials, business and technical talks at all levels of experience.

BOSTON, MA, USA

Oct. 2016

Twister - Free time group in Mundaiz school

Four year experience as free time monitor in my school

SAN SEBASTIAN, Spain

Sep. 2010 – May. 2014

Summer Camp Monitor

Three year experience as camp monitor in Puente La Reina, Navarra.

PUENTE LA REINA, Spain

Jul. 2010-2013

ADDITIONAL INFORMATION

Teacher in Cosmos Academy: Private Teaching for Tecnum and Mondragon university students in technical subjects (Computer Science, Thermodynamics, Heat Transfer, Electronics). Groups of 10 to 25 students. (Apr. 2015 – Jun. 2016)

Part time jobs as private teacher in several subjects for university students. 2012-2015

Creation of 'Twister' free time group in Mundaiz school.

Hobbies: Soccer, tennis, running (several half-marathons completed), music and photography.