Jose Javier Gonzalez

Education

2017–2018 **Massachusetts Institute of Technology**, *M.Sc. Computer Science*, Boston, MA.

2015–2016 **University of Michigan, Ann Arbor**, *Computer Engineering - Exchange*, 3.94/4.00.

- Introduction to Machine Learning
- Cryptography and Network Security – Elliptic Curve Cryptosystem
- Parallel Computing – Parallel Implementation of Interdependent Lindenmayer Systems
- Information Retrieval - Diagnostic Classification of Prevalent Cardiovascular Diseases

2012–2016 **Universidad Pontificia Comillas**, *Bachelor in Telematics Engineering*, Madrid, 9.95/10 – Dean's list – 1st of my major.

- **Bachelor Thesis** – A Simple Power Attack in the TwoFish Key Schedule
- Microprocessors – Three dimensional 8x8x8 Cube LED Display
- Operations Research – Optimal Placement of Cellular Communication Antennas

Work Experience

2017 **Summer Student**, *CERN Openlab*, Geneva, Switzerland.

- Part of the GeneROOT collaboration with King's College Bioinformatics department.
- Developed C++ software to store and access Sequence Aligment/Map Data using CERN's ROOT Framework.
- Benchmarked the tools using Python and performed statistical analysis over the parameter space, improving read speed by over 15 times.

2016 **Research Assistant**, *University of Michigan*, Ann Arbor, MI, USA.

- Part of the *Machine Learning for Data Driven Decisions Laboratory*
- Developed a Heart Sound Classification algorithm based on Temporal Alignment Techniques and MFCC frequency analysis, achieving a 82.4% accuracy in the hidden data.
- Worked in the Physionet Challenge 2016 for the *Computing in Cardiology Conference* and went to Vancouver to present the research.

2014–2015 **Research Assistant**, *Institute for Research in Technology*, Madrid, Spain.

- Development of applications with Google Glass using Android, Java and the Mirror API.
- Design of a QR-Based system for people with different disabilities using Google Glass as a platform to interact. The system achieved a 87% precision capturing gestures.
- The application is now being used by children with special needs at a Spanish institution.

2014 **Software Engineer**, *Extreme Networks*, New Hampshire, USA.

- Service Architecture Development member, responsible for 2 firewall projects.
- Integration of several third-party modules to the *NetSight* network monitor using Java.
- Production software filters for the Paloalto Firewall, reducing unwanted requests by 68%.

Research

2016 **Heart Sound Classification based on Temporal Alignment Techniques**.
Jose Javier Gonzalez, Cheng Perng Phoo, Jenna Wiens, Computing in Cardiology 2016

2016 **A Simple Power Attack in the TwoFish Key Schedule**, *arXiv:1611.07109*.
Jose Javier Gonzalez Ortiz, Kevin J. Compton

Awards

2016 **Award for Excellence in the Bachelor's Degree**, *Universidad Pontificia Comillas*.

2012–2016 **Excellence Scholarship**, *County of Madrid*, Awarded 4 years.

2015–2016 **University Honors**, *University of Michigan*.

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2013 **IMC 2013** , Bronze Medal.
International Mathematics Competition (Blagoevgrad, Bulgaria)

2012 **OEF 2012** , Honorific Mention.
Spanish Physics Olympiad

Languages

Spanish	Native	German	A2 Basic
English	C1 Proficient - TOEFL 110/120	French	A2 Basic

Technical Skills

Advanced	C, Python, Bash/Zsh, LaTeX, MATLAB, sklearn
Intermediate	C++, Java, Git, Verilog, Assembly, PBS, Linux, SQL, Excel
Basic	Haskell, R, Tensorflow, HTML/CSS/JS, GAMS, Spice

Diplomas

2012–Present **Massive Online Open Courses**, *edX, Coursera*.
- Convolutional Neural Networks for Visual Recognition, *Stanford University*
- Neural Networks for Machine Learning, *University of Toronto*
- Computation Structures, *MIT*
- Algorithms: Design and Analysis, *Stanford University*
- Cryptography I, *Stanford University*
- Introduction to functional programming, *TU Delft*
- Circuits & Electronics, *MIT*
- Autonomous Navigation for Flying Robots, *TUM*
- Quantum Mechanics and Quantum Computation, *UC Berkeley*

2012–2016 **Diploma in Professional Skills**, Universidad Pontificia Comillas.
Diploma covering topics in public speaking, teamwork, and effective technical communication

Activities

Data Science Member of **Michigan Data Science Team**, a student association that competes against data scientists from around the world in online prediction challenges.

Open Source Ex-President **Comillas Linux Association**

Robotics Member of the **Aerospace Robot Club Aerobot**

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