# Jose Javier Gonzalez

# Education

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

# Work Experience

- 2016 Research Assistant, University of Michigan, Ann Arbor, MI, USA.
  - o Part of the Machine Learning for Data Driven Decisions Laboratory
  - o 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.
  - o 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.
    - o Service Architecture Development member, responsible for 2 firewall projects.
    - o Integration of several third-party modules to the *NetSight* network monitor using Java.
    - o Production software filters for the Paloalto Firewall, reducing unwanted requests by 68%.
  - 2013 Intern, Enterasys, Newbury, United Kigdom.
    - Introduction to computer networks and distributed systems.
    - Lab experience for the Data Link and Network layers.

### 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 – To be submitted at CHES2017

#### 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.

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, Java, LATEX, MATLAB, sklearn

Intermediate C++, Git, Bash, Verilog, Assembly, PBS, Linux/UNIX, SQL, Excel

Basic Haskell, R, Tensorflow, Javascript, GAMS, Spice, PBS

# Diplomas

2012-Present Massive Online Open Courses, edX, Coursera.

- o Neural Networks for Machine Learning, University of Toronto
- o Computation Structures, MIT
- o Algorithms: Design and Analysis, Stanford
- o Cryptography I, Stanford
- o Introduction to functional programming, TU Delft
- Circuits & Electronics, MIT
- o 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