Pablo Menendez Blanco

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- **Master of Science in Electrical Engineering**, Illinois Institute of Technology, Chicago, IL 2017 – Aug 2018
  Specialized in **Computers and Microelectronics** **GPA 4.00**
- **Master of Industrial Engineering**, Technical University of Madrid, Spain (ABET accredited) 2016 – 2017
  Specialized in **Electronics** **GPA 3.67**
- **Bachelor of Industrial Engineering**, Technical University of Madrid, Spain (ABET accredited) 2012 – 2016
  Specialized in **Automation and Electronics** **GPA 3.51**
- **First-class honors in Science and Technology High School**, Gerardo Diego High School, Spain 2012

ACADEMIC PROJECTS

- **Final Graduate Project: "Multi-Angle & Real-Time Emotion Detection"** Jan 2018 – Aug 2018
  - ✓ Programmed code in **C++** with **Visual Studio** for **Windows 10** and developed app in **Android** with **Android Studio**
  - ✓ Used **TensorFlow**+**Python** to train **DNN** as emotion classifier
  - ✓ Achieved **90% training accuracy and 80% testing accuracy** with faces in **real-life conditions**
  - ✓ Accomplished **6 fps** on laptop with Windows 10
- **CAD tool for Static Timing Analysis** Apr 2018
  - ✓ Built tool to draw **directed graph**, insert delays for each node and calculate arrival, required and slack times
  - ✓ Programmed tool in **Tcl/Tk** to provide user interface and execute **.exe** file (generated in **C**) to calculate times
  - ✓ Implemented **DFS algorithm** to traverse nodes and get minimum times
- **3D graphic adventure PC video game development in group** Sep 2016 – Jun 2017
  - ✓ Elaborated core program in **C++** with **OpenSceneGraph**
  - ✓ Lead task distribution to successfully meet deadlines
  - ✓ Included: landscape, different lights, NPCs, control & movement, dialogues, menus and audio effects
  - ✓ Used **XML** files to save dialogues, trees random locations and saved games
- **Final Undergraduate Project: "Video processing system with Arduino and Wi-Fi modules"** Jan 2016 – Sep 2016
  - ✓ Read images from a camera module and sent them through Wi-Fi to an online server
  - ✓ Configured camera through **SCCB protocol** (similar to I2C)
  - ✓ Downloaded and showed images on phone with **Android app** and on Windows 8 with **Matlab**
  - ✓ Programmed devices in **Arduino**, files in **JSON** and server in **PHP**
- **Developer of Android app for students**: **Steel Tech Learning** (available on Google Play) Nov 2015 – Jan 2016
  - ✓ Built very useful app to practice different types of steel according to composition and microstructure
  - ✓ Coded in **Android** using **Android Studio**
  - ✓ Developed dropdown to select answer and tables to show the player statistics
  - ✓ Achieved **430 installs** from students in just one course
- **Development in group of Android app to find people to play cards** Nov 2015 – Dec 2015
  - ✓ Built Android app to find other people close to you to play famous Spanish cards game called Mus
  - ✓ Developed **registration page**
  - ✓ Coded **localization** function using **Wi-Fi** and **GPS**
  - ✓ Designed **tables** to show statistics of each player and global ranking
- **3D arcade PC video game development in group** May 2015 – Jun 2015
  - ✓ Developed core program in **C++** with **OpenGL**
  - ✓ Designed characters with cubes, cylinders and spheres and achieved real movement
  - ✓ Included: menus, statistics, water effects, different lights, textures and audio effects

TECHNICAL SKILLS

- **PROGRAMMING**:
  - ✓ Expert in Assembly, C, C++, OpenGL, OpenSceneGraph, Arduino, Matlab.
  - ✓ Competent in Android, Python, R, Tcl/Tk, HTML, PHP, XML, JSON.
  - ✓ Familiar with Java, SQL, LabVIEW.
- **TOOLS**: Visual Studio, Android Studio, CodeBlocks, Nodepad++, Vivado, Bitbucket, GitHub, TensorFlow.

RELEVANT COURSES

Computer Science	Systems Dynamics	Android Programming
Computer Control	Systems Programming	Video Games and Simulators Creation
Robotics	Control Systems	Google's Machine Learning Crash Course