

Juan Quintana

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Objective

Generate innovative consumer products for use in healthcare, computer science and engineering research to bring social benefit. Work side by side with likeminded people pushing the boundaries of the possibilities.

Summary

Graduate engineer offering my skills and education to a committed team. Extensive training in engineering qualifies me to offer highly technical approaches to problem solving in micro-fabrication, programming, and material science. My experience in industry and academia added to my high motivation for learning makes me a well-rounded asset to a team.

Education

MSc. Electrical Engineering. [3.6/4.0 GPA]

May 2018 - July 2020

- University of Cincinnati, Cincinnati, Ohio
- Specialization in Advanced Materials, Devices and Microsystems, research assistant in the Ohio Center for Microfluidic Innovation (OCMI)
- Research topics: Flexible poly-silicon fabrication thru AIC, brain flow and pressure micro-sensor fabrication, microTAs, energy recovery thru TEG devices.

BSc. Mechanical Engineering. [3.3/4.0 GPA]

May 2012 - December 2017

- Monterrey Technological Institute. (ITESM), Monterrey, Mexico.
- Honors international exchange in **Polytechnic University of Madrid**, program includes courses in: Project management, unconventional renewable energy generation, advanced manufacturing, industrial electrical systems.
- Awarded outstanding academics & sports development award 2017.

Professional experience

Product Engineer, Ujala Technologies, Cincinnati

August 2020 – January 2021

- CAD/CAM prototyping and manufacturing planning.
- Arduino IDE programming and debugging.
- Electronic PCB testing and manufacturing.
- Fast paced working environment.
- Validation of IEC 6060-1 standard for medical electrical equipment.

Research Assistant, OCMI, Cincinnati

August 2020 – January 2021

- Design and manufacturing of BioMEMS supported by CNC and 3D printing
- Clean-room activities included: Photolithography, wet etching, dry etching, sputtering, cleaning, dicing wafers, SiO₂ development, probing, bonding.
- Scientific publication: J. M. Quintana, T. H. Nguyen and C. H. Ahn, "Polysilicon thin film developed on ultra-thin flexible glass for temperature sensor," 2020 IEEE SENSORS, Rotterdam, Netherlands, 2020, pp. 1-4, doi: 10.1109/SENSORS47125.2020.9278855.

R&D Product Engineer, Siemens, Monterrey**July 2017 – December 2017**

- Led research innovation in Tribology projects, troubleshooting, PLM, validation of standards with global electrical regulations (UL 489 and IEC), CAD/CAM, PLC programming and generation of high-quality technical industry drawings.
- Production line management, PLC programming and SCADA systems management.
- Mostly consisted in technical and design specific tasks such as: CAD for housings, fixtures, and new developments.
- Validation of UL and IEC standard testing inhouse laboratory and outsourced to other Siemens branches.
- Manufacturing line management for high voltage industrial breakers and quality control.

Skills and certifications

- Experience in standard cleanroom microfabrication processes: photolithography, wet/dry etching, wafer bonding, oxidation, annealing, data analysis.
- English (native), Spanish (native), German (Goethe A2)
- Proficient in MS office, SolidWorks, Siemens NX, Fusion 360, ProEngineer/CREO, PowerWorld, Multisim, G-code, MATLAB, Python, LAD, VBA, Arduino IDE.
- Industrial fast paced problem-solving skills, team player, organized, optimistic, good communication skills, resourceful with innovative vision.
- Certifications include: OSHA Hazard Communication Standard, EPA Hazardous Waste, UC Radiation worker.
- Amateur boxer (2012 -2017), hobbyist MAKER, avid documentary and YouTube video watcher.