

**CAMILO VELEZ CUERVO**  
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additional media: [LinkedIn](#) / [Google Scholar](#) / [CVlac](#)

### Goal

Seeking a full time job at R&D, in a technology driven company. Interested in applying my team work and interpersonal skills in successful and challenging projects. Leadership, integrity, creativity and passion are my best assets. And my first contributions to the company will be commitment, availability, mobility and knowledge hunger. Highly interested in growing and multidisciplinary positions inside the organization.

### Profile

Skilled researcher in microsystems, MEMs and electronics engineering. Currently pursuing a PhD degree with emphasis in electrical engineering at Interdisciplinary Microsystems Group at University of Florida (IMG–UF). Background in clean room micro–fabrication process, microfluidics, VLSI design, processor architecture and strong experience on clinical diagnostics analyzers, automation and auto validation results for healthcare sector.

### Education

**Doctor of Philosophy: Major – Electrical and Computers Engineering, University of Florida (student – Dec 2016)**

Research topics: Magnetization of hard magnetic materials for MEMs applications. Advisor: Dr. David P. Arnold, IMG group.  
Pursuing Engineering Entrepreneurship Certificate.

**Master of Science: Major – Electrical and Computers Engineering, University of Florida (2015)**

Research topics: MEMs, microfabrication, magnetic materials, nanoparticles, AlGaIn-GaN HEMT.

**Master of Engineering: Major – Electronics and Computers, Universidad de los Andes – Colombia (2012)**

Research topics: Lab on a chip, Microfluidics, MEMs, Particle Separation, micro fabrication. (Thesis with highest possible grade)

**Bachelor of Science as Electronic Engineer, Pontificia Universidad Javeriana - Colombia (2007)**

Emphasis: VLSI design, PLL, VCO, mix-signal design, Digital VLSI design, Analog VLSI Design, Processor Architecture (Graduate work with HONORABLE MENTION).

### Specific Training

- Clean Room process technics: Photo lithography, e-beam lithography, DRIE, chemical etching, metal deposition, back end process, characterization (5 years of experience).
- Finite element Multiphysics characterization – COMSOL (5 year of experience). Modules: AC-DC, magnetics, microfluidics, particle tracing, LiveLink Matlab, solid mechanics.
- Clinical diagnostics: ADVIA Centralink (ANDEAN REGION SPECIALIST), ADVIA Chemistry, Immunology (Immulite one/2000, and ADVIA Centaur).
- Programmable Logic and VHDL (For University Assistants). Operative Systems Pre-Installation for Windows.

### Professional Experience

- Oct 2007-Sep 2009 **SIEMENS Healthcare Diagnostics / Cali – Colombia**  
**Service engineer (full time job)**  
Andean Region specialist for Advia Centralink (auto validation software) / Participant for the Global Centralink Specialists Annual Meeting / Automation projects coordinator / Immunology and Chemistry service engineer.
- Dec 2005-Jun 2006 **Soluziona SA (Union Fenosa - Group) / Bogotá – Colombia**  
**Computer support (internship)**  
Network service first response. Servers and PC support.
- Jun 2001-Aug 2004 **Market Team / Bogotá – Colombia**  
**Graphic designer (part time job)**  
PowerPoint and Excel presentations design for marketing purposes.

### Academic experience

- May 2012-Present **University of Florida / Gainesville, FL - USA**  
**Research – teaching assistant**  
Graduate Research Assistant (Dr. David Arnold lab – MEMs and magnetic materials).  
Graduate Teaching Assistance (Semiconductor fabrication lab).  
Lab procedure and writing of academic material (Semiconductor fabrication lab).
- Sep 2009-Apr 2011 **Universidad de los Andes / Bogotá – Colombia**  
**Scouting and promotion coordinator / Electrical and Electronics Department (Dec 2011-Apr 2011)**

Recruitment of master students for department / Promotion, communication and scouting projects / Department's Director Assistant for accreditation proposes / Master program summer course coordination (2011-2012) / International professor host.

**Clean room technical assistant (Jun 2010-Dec 2011)**

Student trainings / SOP development / Set up photolithography and etching procedures in the new clean room.

**Teaching assistant**

Graduate Teaching Assistant (MEMs, microsystems fabrication, digital electronics, processor architecture, digital systems design, semiconductors, electronics basics, electronic workshop).

COMSOL tutorial designer for graduate courses.

- Jan 2005-Jun 2007 **Pontificia Universidad Javeriana / Bogotá – Colombia**  
Undergrad teaching assistant (Logic circuits, processors architecture I and II, industrial electronic).
- Jan 2001-Jun 2001 **San Bartolomé la Merced (High school) / Bogotá – Colombia.**  
Teaching Assistant (mathematics reinforcement courses for high school students).  
School History Research.

**Selected Publications** (Full list available at [Google Scholar](#))

- "Magnetic Assembly and Crosslinking of Nanoparticles for Releasable Magnetic Microstructures" ACS nano, 2015.
- "Investigation of the capture of magnetic particles from high-viscosity fluids using permanent magnets". Biomedical Engineering IEEE transactions. 2015. (BEST POSTER AWARD: Frontiers in biomagnetic particles 2015).
- "Impact of proton irradiation on dc performance of AlGaN/GaN high electron mobility transistors" JVS-B. 2013.

**Software Professional Skills**

COMSOL Multiphysics, Advia Centralink (Siemens), Matlab, Agilent VEE 9.2, Synopsys, Magic and Operative Systems Installation. Tanner, Max Plus II, Xilinx ISE, Model Sim, Quartus II, Microwind, Alliance running under Unix emulator, Visual C programming, Corel Draw, Orcad, Spice, Eagle.

**Languages**

Spanish (native); English (fluent)

**Extracurricular Activities**

20 years commitment with World Scout Organization. Cub, scout and rover (92-02). Pack/clan leader 02-12. Wood Badge. Professional Excellence Training (PEP, 2003-2004). Member of the Student Council for Electronic Engineer career (Javeriana 2001 and 2006).



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September 2015