

Javier Tibau

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Software engineer with 10+ years in CS education and research, specializing in designing socio-technical systems. I develop innovative solutions using full-stack technologies and engineering practices to build user-centric products. Passionate about collaboration, I thrive in interdisciplinary teams and seek a dynamic industry role.

EXPERIENCE

Associate Professor of Computer Science

2011 — 2025

Escuela Superior Politecnica del Litoral

Guayaquil, Ecuador

- Led course design and curriculum development in programming [**C, C++, Java, Python**], algorithms and system design [**Data Structures, OOP**], Human-Computer Interaction [**Storyboards, Wire-framing, User Stories, Prototyping, Interviewing, Qualitative Analysis**], and Game Design [**Ideation, Play-Testing**], ensuring practical, industry-aligned skills.
- Collaborated with cross-disciplinary teams to translate complex user requirements into scalable technical solutions for in-class project-based learning.
- Coordinated, mentored, and evaluated approximately 70 students each semester through project-based and technical assessments, guiding both homogeneous CS groups and interdisciplinary teams of 3–5 members in designing and developing software solutions.
- Leveraged advanced presentation software, video authoring tools, and digital content distribution platforms to effectively convey complex technical concepts. Proficient in utilizing Learning-Management Systems to streamline user training, collect actionable feedback, and enhance collaborative communication.

Ph.D. Candidate & Instructor

2014 — 2019

Virginia Tech

Blacksburg, Virginia

- [**Linux, Bash, Docker, SSH, Python, NodeJS, Docker, HTML, CSS, Javascript**] Created and deployed a multi-user synchronized music-listening system through bespoke wooden speakers embedded with an NFC-based interface; tested and iteratively improved this system in the homes of 14 families over a period of 2 years.
- Developed a spatial audio prototype to allow side-conversations in video calls, by integrating a DoubleRobotics Duo Robot, a Sennheiser Ambeo VR microphone, MaxMSP, and Audinate Dante; Validated performance using a 5.1 audio setup and advanced arrays of 24-48 calibrated speakers.
- Leveraged an extensive prototyping skill-set [**3D modeling & 3D printing, woodworking, single board computers, electronics & microcontrollers, home automation, IoTs, full-stack web development**] to innovate, test, and refine design concepts.

Research Assistant

2010

Universitat Politecnica de Catalunya

Barcelona, Spain

- [**C++, Qt, OpenGL**] Developed middle-ware to provide AR/VR programmers with flexible ways to deploy applications in CAVEs, HMDs, and other clustered multi-projector Virtual Environment setups.

EDUCATION

Ph.D. in Computer Science

2014 — 2019

Virginia Tech

Blacksburg, Virginia

Fulbright Scholarship

M.Sc. in Computer Science

2009 — 2010

Universitat Politecnica de Catalunya

Barcelona, Spain

B.Sc. in Computer Science

2003 — 2009

Escuela Superior Politecnica del Litoral

Guayaquil, Ecuador