

Fábio Pereira Benjovengo

Electrical Engineer, PhD and Hardware Designer

Electrical engineer and hardware designer with Masters and PhD degrees in Control Systems and with excellent interpersonal skills. During a ten-year career as an assistant professor of the school of electrical engineering of Puc Campinas (Brazil), I have been vice-director of the schools of Electrical and Mechanical Engineering. As a hardware designer, I have designed systems for a wide range of applications, specially carrier boards for SoMs.

Throughout my career, I have consistently demonstrated a passion for pushing the boundaries of what is possible in the field of electrical engineering. I am excited to continue applying my skills and knowledge to tackle new challenges and contribute to the advancement of technology that will shape the future.

PORTFOLIO

GitHub: <https://github.com/Benjovengo>

PROFESSIONAL EXPERIENCE

Freelancer Hardware Developer

March 2020 – now

Remote freelance jobs, Brazil

- Development of 10+ carrier boards for Toradex SoMs for a wide range of applications. All of which have undergone comprehensive validation processes and have successfully been implemented in real-world applications, demonstrating their effectiveness and reliability in operational environments.
- Currently in the final stages of designing a System-on-Module (SoM) based on NXP's i.MX 8M Plus, featuring configurations of 1 to 4GB RAM, integrated eMMC storage, and an Atheros Wi-Fi and Bluetooth module. The design incorporates a Coral AI TPU, facilitating advanced machine learning capabilities within the module. Moreover a carrier board for this SoM is in its final stage of the design before manufacturing a prototype for testing and validation.
- Design and debug of the carrier boards as well as maintenance of the boards also updating components due to market shortages and end-of-life status.

Back-end Developer

June 2023 – January 2024

ICTS, Brasília/DF (Brazil)

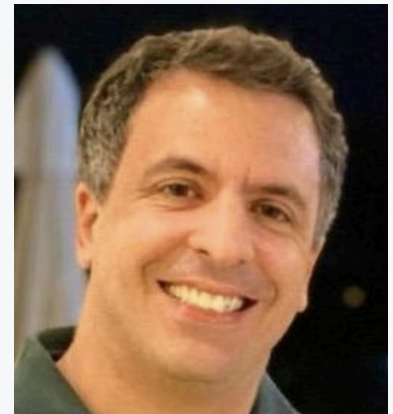
- Development of a backend in C# for an application that keeps track of issues in a PCB production line.

Assistant Professor of Electrical Engineering

August 2010 – July 2020

Puc Campinas, Campinas/SP (Brazil)

- Assistant professor of the School of Electrical and Automation and Control Engineering (former School of Electrical and Telecommunications Engineering).



CONTACT INFO

- Campinas, SP - Brazil
- +55 19 9.9202-5064
- fabio.benjovengo@gmail.com

SKILLS

Hard Skills:

- Hardware design
- Embedded systems design
- Modeling and simulation of electrical systems
- Control systems analysis and design

Soft Skills:

- Critical thinking
- Adaptability
- Teamwork
- Problem-solving
- Communication
- Decision-making
- Resourcefulness

Programming Languages and Tools:

- Altium Designer
- KiCad
- Eagle
- Python
- C
- Matlab/Simulink
- Microsoft Office
- VBA

OTHER INFORMATION

- English - fluent
- Portuguese - native
- Spanish - intermediate

- Main fields:
 - Embedded Systems
 - Digital Electronics
 - Control Systems
 - Robotics
 - Software Development
- Associated head of the schools of Electrical and Mechanical Engineering - from 2019 to 2020.

Visiting Assistant Professor

August 2009 – December 2009

Unesp, Sorocaba/SP (Brazil)

- I taught the discipline of Digital Control Systems at undergraduate level for the school of Automation and Control Systems Engineering.

ACADEMIC HISTORY

PhD in Electrical Engineering

August 2007 – December 2016

Unicamp, Campinas/SP (Brazil)

- *Dissertation title:* "Sliding mode approaches for the longitudinal control of an autonomous robotic blimp"
- Advisors: Paulo Augusto Valente Ferreira and Ely Carneiro de Paiva
- CAPES scholarship

MA in Electrical Engineering

August 2004 – March 2006

Unicamp, Campinas/SP (Brazil)

- *Thesis title:* "Robust pole placement and stability analysis of interval systems with data dependencies"
- Advisor: Paulo Augusto Valente Ferreira
- CAPES scholarship

BA in Electrical Engineering

March 1999 – July 2004

Unicamp, Campinas/SP (Brazil)

- Certification in Control Systems.