Curriculum Vitae – Tiago Hekkert



Personal Information
Full name: Tiago Ferreira de Castro te Lintel Hekkert
Address: Rua Avenida do Conde 5884, 1st Floor, Left
4465-093, São Mamede de Infesta, Matosinhos,
Portugal
Telephone: (+351) 93 898 46 27
E-mail: tiagohekkert@gmail.com
Date of birth: 9 July 1987
Driving licence: Categories B1 and B
Nationality: Portuguese and Dutch (dual citizenship)
Portuguese Citizen Card No.: 12637485 6 ZY2

Professional Profile

I began my professional career in technological physics engineering, working on software and firmware development, electrical engineering and electronics as a research fellow at Instituto Superior Técnico and the European Space Agency (ESA) in Noordwijk, the Netherlands. I gained experience in software and firmware development and data analysis.

In 2016, I moved to the Kilimanjaro region of Tanzania, initially as a volunteer with an NGO and later as the manager of an agricultural project focused on tropical fruit production.

Since October 2022, I have been working as a contracted researcher at INESC TEC in Portugal.

I am dedicated and have strong communication skills, demonstrated by my experience working abroad and in multinational environments.

I speak and write Portuguese and English fluently.

I am registered as a Trainee Engineer with the Northern Region of the Portuguese Order of Engineers, Electrical Engineering College (membership No. 72103).

Education

2006 University of Lisbon
Instituto Superior Técnico
Integrated Master's Degree in Technological Physics Engineering, completed in October 2013.
Final master's grade: 17 out of 20.

Professional Experience

2011 IST Mechanical Technology Laboratory
Participated in a firmware development project (4 months).
Main responsibility: Developed VHDL code for data acquisition systems used to analyse the operation of a micro-electrical discharge machining (micro-EDM) machine.

2012 to 2013 Institute for Plasmas and Nuclear Fusion (IPFN – Lisbon, Portugal) and Max Planck Institute for Plasma Physics (IPP – Greifswald, Germany)

Participated in firmware, software and driver development projects through two six-month research fellowships.

Main responsibility: Developed software applications in C, Verilog code for digital processing and data acquisition, and C drivers for a Linux-based operating system. Subsequently participated in testing at the Max Planck Institute for Plasma Physics (IPP) in Germany during two separate missions.

2014 to 2016 European Space Research and Technology Centre, ESA (ESTEC – Noordwijk, the Netherlands)

Internship supporting various firmware (Verilog and VHDL), software (C, C++ and Python) and driver (C) development projects, funded by a two-year FCT fellowship.

August 2016 to February 2019 WATOTO KICHEKO FOUNDATION (Arusha, Tanzania)

Project Director (2 years).

Main responsibility: Learned and applied aquaponics, aquaculture and other advanced agricultural techniques to generate income using resources available in developing countries. Supervised and reviewed the work described above.

April 2019 to April 2021 FAZENDA Agriculture Development Limited (Arusha, Tanzania)

Director, business partner and co-founder (2 years).

Main responsibility: Established and managed a vegetable and tropical fruit farm supplying the local tourism sector. Supported the company's legal and accounting activities and supervised operational tasks.

January to October 2022 MBO (Perafita, Portugal)

Intern.

October 2022 to present INESC TEC (Porto, Portugal)

Contracted Researcher.

Main responsibilities: Support research and development projects in electrical energy and power systems. Develop C code for IEC 61850 communications. Assist with power network simulations in MATLAB and OPAL-RT. Configure intelligent protection devices using Efacec Automation Studio software.

Languages and Computer Skills

Portuguese: Native language; excellent spoken and written proficiency (C2).

English: Fluent in spoken communication and comprehension (seven years working abroad in English-speaking professional environments), with good written proficiency. British Council and secondary-school qualification at YL4 level (B2).

Spanish, French and Swahili: Basic spoken proficiency (A2).

Computer skills: Strong programming skills in VHDL, Verilog and C. Proficient in Microsoft Office (Word, Excel and PowerPoint), Emacs, nano, MATLAB, RT-LAB and Automation Studio. Experience with Linux-based and Microsoft operating systems. Intermediate programming skills in C++ and Python.

Personal and Interpersonal Skills

Goal orientation: Developed through my master's degree and professional experience, setting objectives and planning tasks, efforts and strategies to achieve them.

Responsibility: My academic and professional experiences have helped me develop a strong sense of responsibility.

Teamwork: Developed through group projects and coursework during my studies, as well as through more recent work that I have led.

Other Activities

Contributed as a co-author to the paper: Ivo S. Carvalho, Paulo Duarte, Horácio Fernandes, Daniel F. Valcárcel, Pedro J. Carvalho, Carlos Silva, André S. Duarte, André Neto, Jorge Sousa, António J. N. Batista, Tiago Hekkert, Bernardo B. Carvalho, "ISTTOK real-time architecture", submitted to an Elsevier journal on 1 May 2013.

References

Dr Clara Sofia Gouveia, INESC TEC:
clara.s.gouveia@inesctec.pt

Engineer Alberto Valverde, Controllers Department, European Space Agency:
alberto.valverde@esa.int

Interests (Hobbies)

Swimming; fishing; electronics – small multimedia projects, video security systems and toys using Raspberry Pi and Arduino boards.