Fábio A. Seixas-Lopes

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Based in Lisbon, Portugal

PROFILE

I am an **electrical and computer engineer** with experience in interoperability research. I have developed software, mobile applications and solutions for hardware integration.

I am a committed person, with a strong capability to work in team, learn fast and to adapt to different environments and technologies.

People describe me as perseverant, self-disciplined and action oriented.

I am always seeking for opportunities to participate in innovative and challenging projects that allow me to improve myself. Currently, I am only considering remote positions.

SKILLS

Technical Skills

- *Back-End*: **Java**, **Python,** SQL and C/C++
- *Front-End*: JavaScript and HTML/CSS
- *Areas with Relevant Experience*: **Mobile Development for Android**, Reverse-Engineering, **Scientific Research and Writing,** IoT Networks, Artificial Intelligence and Interoperability

EXPERIENCE

Uninova – Instituto de Desenvolvimento de Novas Tecnologias — Lisbon, Portugal

Researcher in Interoperability of Complex Systems — 2017-present

- Member of the Group for Research in Interoperability of Systems (GRIS).
- Participation in the European Research Project **C2NET** with MSc. Thesis and the implementation of IoT networks in metalworking factories (St. Tirso, Portugal) *[2017-2018]*.
- Participation in the European Research Project **BEinCPPS**/CPMSinCPPS, with the development and implementation of Cyber-Physical Production Systems (mainly production scheduling and optimization tasks) in a SME cutlery factory (Guimarães, Portugal) *[2018]*.
- Participation in the European Research Project **Smart4Health** (development of a platform for citizen-centered health record EU-EHR exchange and data acquisition for medical equipment) [*Most Funded Research Project in the Horizon 2020 Programme that was coordinated by a Portuguese Entity*] as a member of the technical team for various use cases (mainly in Funchal, Madeira, Portugal), working on the integration/reverse-engineering of smart wearables (health and wellbeing) for data acquisition, IoT retrofitting of a rehabilitation/physiotherapy machine for back pain and as a developer of the "*Citizen Hub"* mobile app and wearable app *[2019-2023]*.
- Currently working in the European Research Project **TeleRehaB** (AI-based DSS for AR rehabilitation training platform) as the coordinator and developer of the clinician's dashboard and patient management system [2022-present].
- Scientific Publications:
  - IEEE SMC 2017 Conference (Banff, Canada) entitled "Semantic Maps for IoT Network Reorganization".

- I-ESA 2018 Conference (Berlin, Germany) entitled "A Lightweight IoT Hub for SME Manufacturing Industries" *[Awarded with "Best Paper Award"],* which was also published in the book "*Enterprise Interoperability VIII*".
- IEEE IS 2018 Conference (Funchal, Madeira, Portugal) entitled "Cutting-edge Process Modelling and Simulation in Cyber-Physical Product Systems" and "Cyber-Physical Production Systems to Monitor the Polishing Process of Cutlery Production", which were revised in "Empowering SMEs with Cyber-Physical Production Systems: From Modelling a Polishing Process of Cutlery Production to CPPS Experimentation" and published as part of the book "Intelligent Systems: Theory, Research and Innovation in Applications", published in 2020.
- ASME IMECE 2019 Conference (Salt Lake City, Utah, USA) entitled "Innovative Product/Service for Personalized Health Management".
- DoCEIS 2020 Conference (Caparica, Portugal) entitled "Production Process Modelling Architecture to support improved Cyber-Physical Production Systems", which was published in the book (that I co-edited) "Technological Innovation for Life Improvement".
- I-ESA 2022 Conference (Valencia, Spain) entitled "Seamless Wearable Data Collection in a Mobile Environment".
- IFAC 2023 World Congress (Yokohama, Japan) entitled "Bio-data Collection for a Community Adaptative Work-life Balance".

- Chair at the 10th and 11th DoCEIS [2019-2020] conference sessions "Collaboration and Resilient Systems" and "Biomedical Analysis and Diagnosis", member of the Organizing Committees for the IEEE TEMS 15th CEISEE conference [2019] (Caparica, Portugal), the IEEE IS Conference [2018] (Funchal, Portugal) and the DOCEIS Conference [2020] (Caparica, Portugal), Presenter of the Health Cluster Day (technical workshop) at the 2nd ICIE conference [2022] (Guimarães, Portugal).
- Assistant in the coordination of several MSc. thesis and Teaching Assistant in the courses "Architecture for Integration of Systems" and "Data Acquisition Systems" of the Electrical and Computer Engineering MSc. program [2019-2021] (FCT-UNL).

EDUCATION

Faculdade de Ciências e Tecnologia, NOVA University of Lisbon Lisbon, Portugal

PhD. Degree in Electrical and Computer Engineering 2018-present

Electrical and Computer Engineering Doctoral Program with affiliation to the Uninova research center.

Working thesis entitled "IoT for Artificial Intelligence in Sustainable Agriculture".

Current focus on Internet of Things, Artificial Intelligence and Cyber-Physical Systems.

Faculdade de Ciências e Tecnologia, NOVA University of Lisbon Lisbon, Portugal

MSc. Degree in Electrical and Computer Engineering 2011-2017

Master's Thesis developed within the C2NET project with affiliation to the Uninova research center entitled "Intelligent IoT and Dynamic Network Semantic Maps for more Trustworthy Systems".

Areas of Focus (Master's Degree): *Digital and Perceptional Systems* (Processing and Information Integration), *Robotics and Integrated Manufacturing* (Robotic Systems) and *Telecommunications* (Networks).

OTHER INFORMATION

- Born in 21/08/1993 in Lisbon, Portugal.
- Fluent in Portuguese and English. Some knowledge of Spanish and French (A1).
- A/B Driver's License.