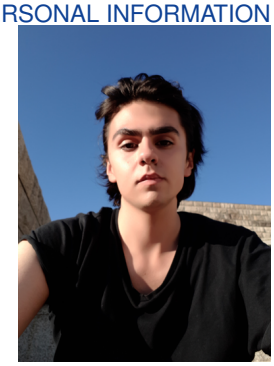
europass Curriculum vitae

PERSONAL INFORMATION

João Costeira Faria Gomes



Braga (Portugal)

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Gender Male | Date of birth 19/01/1996 | Nationality Portuguese

EDUCATION AND TRAINING

09-2019 – 12-2021 **Master's Degree in Computer Engineering** Level 7 QRQ

Universidade do Minho – Braga (Portugal)

Profile on
- Formal Methods in Software Engineering
- Cryptography and Security of Information

Complementary
- Scripting in Natural Language Processing
- Web Application Development
- Bio-Informatics Applications

Master's Thesis: Study of Nineteenth Century Orphanages Archives from Fafe

09-2015 – 09-2019 **Degree in Software Engineering** Level 6 QRQ

Universidade do Minho – Braga (Portugal)

09-2012 – 06-2015 **Secondary Education in Sciences and Technologies** Level 3 QRQ

Escola Secundária Carlos Amarante – Braga (Portugal)

PROFESSIONAL/COMPLEMENTARY EDUCATION

06-2022 – 08-2022 **Full Stack Web Development Course**

Organized by the Department of Computer Science at the University of Helsinki

Course: Online course focused on the development of modern full stack web applications. The course material is available at `https://fullstackopen.com/en/about` and my answers/certificates are available at `https://github.com/joaocosteira/fullstack2022` .

Main Technologies/Topics:
- React.js
- Node.js and Express
- Testing: (Jest, Cypress, Supertest)
- Redux and React Router
- GraphQL and Mongo
- Typescript

01-2022 – 06-2022 **Continuing The Foundling Wheel Archive**

Further Development of the Foundling Wheel Archive, a collaborative project between the Universidade do Minho and The Municipal Archive of Fafe.

09-2021 – 04-2022

Assistant Role

While I was finishing my Master's and further developing the Foundling Wheel project, I provided support to fifth year students starting their Master's Thesis in the nlp domain. Additionally, I did class presentations for Linguist students (second year) at Universidade do Minho, in order to introduce knowledge repositories and ontologies, which is part of their technological class curriculum.

22-10-2019

Sessão de estudo de Programação Funcional

Organized by: Cesium(Centro de Estudantes de Engenharia Informática da Universidade do Minho)

Workshop: Helping First year students learning the functional programming language Haskell

07-03-2019

Intro to Docker

Organized by: Cesium(Centro de Estudantes de Engenharia Informática da Universidade do Minho)

Workshop: Introduction to containers, application deployment via docker.

04-02-2019 – 08-02-2019

SEI, Semana da Engenharia Informática

Organized by: Cesium(Centro de Estudantes de Engenharia Informática da Universidade do Minho)

Conference - topics:

- Automotive Infotainment System
- Small and Big Data at Farfetch
- Conselho de Carreira de um Engineering Manager! (... E porque a Farfetch é um óptimo lugar para começar!)
- Building Data Driven Products at Scale
- Big Data and AI/ML – A História Do Big Data na Primavera
- Gamification 1-0-1
- Transforming Mobility
- Startups for Geeks

13-03-2018

Python Workshop

Organized by: Cesium(Centro de Estudantes de Engenharia Informática da Universidade do Minho)

Workshop: Introduction to the Python programming Language

PERSONAL SKILLS

Computer skills

- React.js, Node.js, Express, Django Framework,
- React Redux, React Router, GraphQL
- Spacy, NLTK, Pronto Ontology, Owlready
- JavaScript, TypeScript, Python, Haskell, C, C#, Java, Prolog, SQL Server, Alloy, Electrum, SMV, TLA+, Pure Data
- Jupyter Notbook, SageMath, Cryptography, Sonarqube
- Why3, Frama-C, MiniSat, Uppaal
- HTML, CSS, SASS, Tailwind CSS, XML, XML Schema, XSL Stylesheet, DTD Schema, OWL, RDF
- Scikit-Learn, Scipy
- Figma, Oxygen XML Editor, Visual Studio, Linux, Mac OS, Microsoft Windows, Microsoft Office

Job-related skills

- Development of the Foundling Wheel Archive `http://arquivoexpostos.epl.di.uminho.pt/`. This application disseminate nineteenth century documents, currently preserved by the Municipal Archive of Fafe. Duo to the advanced age and the degradation issues frequently found within a document, the application spellchecks and restores unreadable sections. The resulting cleaned documents are processed, automating the identification of concepts, attributes and the respective relations between them. These entities and relations are permanently stored accordingly to an ontology, which includes a reasoner component to derive additional knowledge. The knowledge graph and the transcribed documents are accessible via the web application.
- *Spickles* `https://spickles.vercel.app/` development team member. Spickles is a mobile app used for recommending a movie, not only for a specific user, but helping the decision for an arbitrary sized group. Contains a recommendation engine, which based on the selected criteria, users preferences, reviews, and previously watched movies, a small pool of movies is generated and shared between the group members. Anonymously, each member is able to swipe left/right movies contained in the recommended list, assisting the decision process by achieving a consensus on what movie to watch.
- Development of an Uppaal project to model, validate and verify a traffic “T” shaped intersection. The traffic congestion is controlled via traffic lights and furthered optimize with the introduction of sensors that regulate the light duration in response to the traffic flow currently detected.
- Formal specification and verification of an Adaptive Exterior Light system for European cars. The model-checking system was developed in Alloy and TLA+.
- Development of an ontology and knowledge extraction from eighteenth-century testament, written in Portuguese and Mirandês. A named entity and relation component were developed to automate the extraction of important information from unstructured text, in a triple format.
- Development of a parser to compress drum machine files. This compressor generates a file with a small and light-way notation, to describe drum machine patterns in a smaller notation than the musical industry standard MIDI format.
- Development of a cooking assistant web application. In this application, users are able to search for a wide range of recipes, receive recommendations and rate them. During the cooking process, the navigation is voice controlled, carefully assisting each step of the recipe. Additionally, the application allows the creation of shopping lists, find nearby stores and manage ingredients stock.
- Member of the development team of a social network for students. In this social media application, each student is able to create a profile, create a group (private or public), join different groups, view profiles, follow users, search by topics (hashtags) and access a timeline with the recent posts. This project is a web app developed in node.js.

Digital competences

SELF-ASSESSMENT				
Information Processing	Content creation	Communication	Problem solving	Safety
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital competences - Self-assessment grid

Mother tongue Portuguese

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	A2	A2	A1	A1	A2

Communication skills	– Good communication skills. – Good ability of written communication. – Oral presentation experience. – Strong sense of responsibility.
Organisational / managerial skills	– Good capacity for coordination and leadership. – Good organizational skills, coordination and autonomy acquired during academic training. – Good capacity of teamwork.
Driving licence	B