# José Devezas, PhD

data  $\rightarrow$  information  $\rightarrow$  knowledge  $\rightarrow$  search & analytics



## **Location**Porto, Portugal

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## Languages

Portuguese (native) English (fluent)

#### **Main Skills**

Graph Analytics, Neo4j, Gremlin, SQL, Python, R, Scala, Java, Vue.js

## **Education**

2016–2021 **Doctoral Program** in Computer Science (MAP-i)

Curricular grade: 19 (out of 20)

Thesis: Graph-Based Entity-Oriented Search

Two main systems were developed:

• ANT, an entity-oriented search engine for the University of Porto.

• Army ANT, a workbench for innovation in entity-oriented search.

Skills: Java, Lucene, Neo4j, Gremlin, R, Python, Flask, PostgreSQL, Vue.js

2003–2010 **Master** in Informatics and Computing Engineering

Final grade: 14 (out of 20), Thesis grade: 18 (out of 20)
Thesis: Link Ecosystem of the Portuguese Blogosphere

Skills: R, igraph, Perl, BerkeleyDB, Lucene

2000–2003 **Technological Specialization** in Informatics

Classification: 18 (out of 20)

**Experience** 

2022–2023 **HEX DATUM OÜ** 

Founder CEO

Hex Datum OÜ was founded as a solopreneur and Estonian e-residency company. We sold software-as-a-service (SaaS), as well as consulting services in the area of intelligent information systems. Our flagship product was a crypto analytics web application called Indicator Dash (indicatordash.app).

**Skills:** Data Engineering, Python, ETL, PostgreSQL, JanusGraph, Redis, Data Science, Financial Indicators, Data Visualization, Jupyter, Time Series Forecasting, Transformers, LSTMs, Search Engineering, Sentiment Analysis, Full-Stack Development, Flask, Vue.js, Tachyons

2021-2022 CAREER BREAK

Porto, Portugal

U.Porto, UA, UMinho

U.Porto

Colégio de Gaia

Tallinn, Estonia

Career Transition

Proof-of-concept and prototyping in preparation for startup creation.

Researcher / PhD Student

- MAP-i PhD student and FCT grant holder, working on entity-oriented search.
- FourEyes researcher with a focus on studying information consumption on social media.
- Data engineer responsible for developing infrastructure for Twitter data collection and analysis, and news collection and archival.

**Skills:** Scientific Writing, Experimental Design, Search Engineering, Data Engineering, Twitter API, Social Media Analytics, Python, Flask, Vue.js, Bulma

#### 2015–2021 INFOLAB, UNIVERSITY OF PORTO

Porto, Portugal

Researcher / PhD Student

- MAP-i PhD student and FCT grant holder, working on entity-oriented search.
- Research and development of the ANT entity-oriented search engine.
  - Construction of specialized indexes and ontologies for efficient and effective question-answering through contextual widgets.
- Developed the open source project, Army ANT, as a platform for research and experimentation of search engines backed by linked data.

**Skills:** Scientific Writing, Experimental Design, Search Engineering, Web Crawling, Data Engineering, Data Science, Jupyter, PostgreSQL, MongoDB, Java, Lucene, Neo4j, Gremlin, R, igraph, Python, Scrapy, NetworkX, Pandas, SQLAlchemy, Flask, Vue.js, Spectre.css

#### 2017–2018 FACULTY OF ENGINEERING, UNIVERSITY OF PORTO

Porto, Portugal

Invited Assistant

Lectured two semesters on:

- Social network analysis, for the Information Management in Social Networks course, of the Master in Information Science.
- Relational and document databases, for the Databases course, of the Master in Informatics and Computing Engineering.

**Skills:** Educational Content Creation, Slide Presentation, Student Assessment, Gephi, KNIME, SQLite, MongoDB

#### 2014–2015 **INTERRELATE**

Porto, Portugal

Software Engineer / Data Scientist

INTERRELATE was a data analytics and social media monitoring and management company. It provided services based on data retrieval, entity detection, sentiment analysis, data visualization, text mining and natural language processing, event and topic detection, and influencer detection.

**Skills:** Social Media Analytics, Twitter API, Facebook API, Web Crawling, PostgreSQL, R, Python, Anomaly Detection, Statistical Smoothing, Regression, Classification, Clustering, Graph Analytics, Automated Reporting, Data Visualization, Software Engineering, Systems Integration, Web Development, Systems Administration, Backup Strategies, Firewall Rules, SMTP, DNS, Nginx, Log Monitoring, Support Tickets, Payment Services

#### 2012–2013 SAPO LABS, UNIVERSITY OF PORTO

Porto, Portugal

Researcher / Developer

Research and development of music discovery and recommendation techniques supported on a graph-based neighborhood approach, as well as on latent factor models based on matrix factorization algorithms. Development of methodologies to combine knowledge from different dimensions, including not only user profile, content and context features, but also social features, such as community structure. Related tasks required work on data mining, multimodal network analysis and community detection, and information retrieval.

**Skills**: Recommender Systems, Music Recommendation, Collaborative Filtering, Content Filtering, Graph Analytics, Neo4j, Gremlin, HDF5, Python, SciPy, PyMF

#### 2011–2012 CRACS, INESC TEC

Porto, Portugal

Researcher / Developer

Enhancement, adaptation and implementation of state of the art algorithms for network analysis, data mining and data visualization, in the context of intelligent information systems for cyber journalism, as part of the Breadcrumbs Project (UTA-Est/MAI/0007/2009).

#### 2010-2011 SAPO LABS, UNIVERSITY OF PORTO

Porto, Portugal

Researcher / Developer

Work in the areas of data mining, network analysis, community detection, information retrieval, real-time data analytics and data visualization.

#### 2002-2003 NPF PORTUGUESE FREEBSD GROUP - npf.pt.freebsd.org

Coimbra, Portugal

Documentation / Programming

Translation of the official FreeBSD documentation to portuguese, creation of how-to guides in portuguese, porting open source applications to FreeBSD and programming and content management of a hints widget.

## **More Information**

Publications: http://josedevezas.com/academy/publications/

**Projects:** http://josedevezas.com/academy/projects/ **Slides:** http://josedevezas.com/academy/slides/