

# HUGO ANDRÉ COELHO CARDOSO

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## EDUCATION

### UNIVERSITY OF MINHO

2017-Present

MSC. IN SOFTWARE ENGINEERING

- Specialized in Full Stack Development and Distributed Systems.

### DOM DIOGO DE SOUSA COLLEGE

2014-2017

HIGH SCHOOL

- Enrolled in the Science and Technology program.

## PROJECTS

### DATAGEN FROM SCHEMAS

2022

DISSERTATION

- Full stack, open-source web application built using Vue.js, Node.js, Strapi, MongoDB and Docker.
- Generates complex datasets in JSON or XML from schemas.
- Translates schemas to DSL models and uses its previous version as a middleware to produce according datasets.

### DATAGEN

2021

- Full stack, open-source web application built using Vue.js, Node.js, Strapi, MongoDB and Docker.
- Features a domain-specific language (DSL) for dataset specification, with extensive documentation available [here](#).
- Generates complex datasets in JSON, XML or CSV, with the option to automatically supply APIs on them using Strapi.
- Deployed under the University of Minho's domain ([here](#)) for public use, used by teachers and students.

### REDU

2021

- Full stack web application built using Vue.js, Java Spring, Java EE Beans, Hibernate and MySQL.
- Content management system for sharing of academic resources (files).
- Deployed on the GCP with high-availability tools such as load balancers and attachable storage.

## PEER-REVIEWED PUBLICATIONS

### SYNTHETIC DATA GENERATION FROM JSON SCHEMAS

2022

SYMPOSIUM ON LANGUAGES, APPLICATIONS AND TECHNOLOGIES (SLATE'2022)

- Describes the component of DataGen From Schemas capable of generating datasets from JSON schemas.
- Highlights its capabilities in terms of generated data bulk, variety, representativeness and customization options.
- Paper has been peer-reviewed and approved and is awaiting official publication (expected: 2022-08-06).

### DATAGEN: JSON/XML/CSV DATASET GENERATOR

2021

SYMPOSIUM ON LANGUAGES, APPLICATIONS AND TECHNOLOGIES (SLATE'2021)

- Describes DataGen, a dataset generator featuring a domain-specific language (DSL) for dataset specification.
- Concludes that it outperforms other alternatives in the market, thanks to its complex DSL features, such as fuzzy generation, and the provision of APIs on generated datasets.
- Full paper available on the [Dagstuhl Research Online Publication Server](#) and the [University of Minho Repository](#).

## SKILLS

**PROGRAMMING LANGUAGES** *Experienced:* JavaScript | C | Java | Python *Familiar:* Haskell | Bash

**MARKUP LANGUAGES** HTML | XML | CSS | TeX | Markdown

**SOFTWARE DEVELOPMENT** Programming Paradigms | CLI | GIT | Design Patterns | UML

**FRAMEWORKS & LIBRARIES** Node.js | Vue.js | jQuery | Vuetify | PEG.js | Docker

**DATABASE MANAGEMENT SYSTEMS** MongoDB | MySQL | PostgreSQL | Neo4j

**LANGUAGES** *Native:* Portuguese *Bilingual:* English *Fluent:* Spanish