

# Gustavo Pedro Ricou

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## Software Developer | Software Engineer | Full Stack Developer

Software developer (First class honours in Physics + First class honours in Computer Science) with 3 years of experience in front-end, back-end and database development, manipulation, and analysis. Currently completing a master's degree in software design while being a top performer in my current company.

## CORE COMPETENCIES AND ACHIEVEMENTS

### Core Programming Languages:

Java	Intermediate	Developing applications recently in university, with an average <b>grade above 90%</b> . In the current master's degree, in a course equivalent to <b>Oracle Certified Associate Java Programmer</b> , also with a <b>grade above 90%</b> . Currently attending a course equivalent to the <b>Oracle Certified Professional Java Programmer</b> . In addition, currently <b>developing Microservices with Java Spring Boot</b> for my master's degree final project.
JavaScript	Intermediate	DOM manipulation analysis, with a <b>quality above 98% and productivity above 100%</b> + several projects in my portfolio, including a recent <b>chrome extension</b> built with <b>Manifest V3</b> . Also, I regularly <b>extract data from websites</b> for Stock Market analysis using the Chrome console. Example of small code for Etoro extraction <a href="#">here</a> .
Python	Advanced	<b>Root Cause Analysis</b> that improved overall <b>quality from 80% to 95%</b> + several <b>physical systems simulations</b> using <b>numerical methods for differential equations</b> , during BS and internships + current master's <b>project on statistical analysis with a grade of 100%</b> .
PHP	Beginner	Several <b>dynamic websites</b> designed for my Computing degree.

### Technological Skills:

- HTML/CSS (Responsive Design, UX/UI)
  - node.js
  - Bootstrap
  - TypeScript (basic)
  - React (with Redux and Hooks)
  - HTTP
  - Unix System Administration
  - Google Cloud
  - AWS
  - Maven
  - Express and Express middleware
  - RESTful architecture
  - Relational and Non-Relational Databases (MongoDB, using Mongoose npm, PostgreSQL and SQL, using MySQL)
  - Docker
  - Kubernetes
  - Spring Framework
  - Eureka
  - NumPy
  - SciPy
  - Postman
  - OOD
  - OOP
  - Microservices Security (JWT/OAuth2)
  - Jenkins
  - SonarQube
  - Karate
  - Ansible
- **Analytical/Problem-Solving skills:** Education focused on analytical and problem-solving skills (Physics and Computing). Extracted data with **SQL** and **performed data analysis with Python and Excel**, reaching conclusions that once presented to stakeholders **improved quality from 80% to 95%** over a 1–2-year period.
  - **Attention to detail:** Reviewed and analysed **thousands of web pages** using **DOM manipulation**, with a **quality above 98% and productivity above 100%**.
  - **Teamwork/Communication:** Responsible for the induction of new teammates on a new project, from an initial team of 10 to a team of 120, with **100% of new joiners having shadowed me**, with **quality above 97%** for new joiners. Coordinating the hashtag project among team members in several locations decreased the **leakage to below 3%** and the number of false **positives to below 5%**.
  - **Languages:** English, Portuguese, French and Spanish.

## PROFESSIONAL EXPERIENCE

### Oct 2020 – Present – Sampling Quality Analyst

TikTok | Dublin, Ireland

- Data Sampling Extraction with SQL or ETL software.
- Perform Sampling Analysis (Root Cause Analysis) using Python or Excel.
- Write weekly reports with the central values, conclusions, and improvement suggestions.
- Check abnormal results in detail.
- Present those conclusions to the stakeholders in weekly meetings.

### **Sep 2019 - May 2020 – Community Operations Analyst**

**Covalen** | Dublin, Ireland

- Data Sampling Extraction with client provided ETL software.
- Link potentially dangerous behaviour to specific triggers by analysing thousands of messages using Python and language knowledge.
- Assess the risk of high-value client accounts.
- Present results to client representatives weekly.
- Identify inefficiencies in workflows and suggest and work on solutions.

### **Feb 2019 - Aug 2019 – Content Analyst**

**Accenture** | Krakow, Poland

- Verifying the safety and compliance of dozens of web pages daily by analysing their DOM structure, using JavaScript to trigger events.
- Automating in-browser processes with JavaScript.
- Build chrome extensions that will incorporate the developed automation.
- Be shadowed and participate in the training/induction of new joiners.
- Identify inefficiencies in workflows and suggest and work on solutions.

### **Jun 2017 - Dec 2018 – Content Analyst**

**Arvato Finance** | Krakow, Poland

- Verify the safety and compliance of dozens of web pages daily by analysing their DOM structure, using JavaScript to trigger events.
- Automate in-browser processes with JavaScript.
- Build chrome extensions that will incorporate the developed automation.
- Be shadowed and participate in the training/induction of new joiners.
- Identify inefficiencies in workflows and suggest and work on solutions.

## **EDUCATION**

### **MSc in Software Design With Cloud Native Computing (Level 9), Technological University of the Shannon, Athlone – Sep 2022 - Present**

With: Python; Java8 (OOD, OOP); Container Design and Deployment: AWS, Docker, Kubernetes; Microservices Architecture: Spring Framework (Spring Boot, Spring Data, Spring Cloud), Eureka, Hystrix, OAuth2, JWT; Continuous Build And Delivery: Pipelines, User Stories, git, Scrum, Maven, Jenkins, SonarQube, Spring Boot Unit Testing, Karate, Ansible.

### **Higher Diploma in Science of Computing (Level 8), Atlantic Technological University – Sep 2021 - Jun 2022**

With: Unix System Administration, Google Cloud, Java8 App development (OOD, OOP), Database development and manipulation (SQL, using MySQL), Internet App development (UX/UI, HTML, CSS (Responsive Design) and PHP (dynamic webpages)), Product Management and Software Testing (ODM, Agile development, specifically SCRUM).

### **Full Stack Developer, Strive School – Apr 2020 - Oct 2020**

With: node.js, HTML/CSS (Responsive Design, UX/UI), JavaScript ES10 (ECMAScript 2019), TypeScript, Bootstrap, ReactJS (with Redux and Hooks), AJAX, HTTP, Express and Express middleware to design API, RESTful architecture, Relational and Non-Relational databases (MongoDB, using Mongoose, and PostgreSQL), Cloud (focused on Microsoft Azure services), Agile Development (specifically SCRUM), Postman, Microservices Security (JWT/OAuth).

### **Postgraduate studies in Nuclear Fusion, University of Stuttgart and University of Lorraine – Sep 2013 - Sep 2015**

With: Numerical Methods in Plasma Physics (numerical methods for differential equations in Python with NumPy and SciPy).

### **Bachelor's degree in physics, University of Porto – Sep 2008 - Sep 2013**

With: Programming (Python), Simulation (MATLAB), Computational Physics (OOD, OOP, Python with NumPy and SciPy).