

# Resume / CV

## Contact Information

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**Social:** [LinkedIn](#), [GitHub](#), [GitLab](#), [Stack Overflow](#), [Leetcode](#)

**Location:** Brasília, DF, Brazil

## Professional Summary

Senior Software Engineer and CTO with over a decade of experience in technology and financial services. I specialize in Rust, Python, Javascript and web development and have a proven track record of leading technology strategy and R&D initiatives. My role as a co-founder has honed my project and team management skills and enabled me to drive innovative software solutions. With my knowledge of Git, Docker, SQL and various frontend frameworks, I excel at developing end-to-end software solutions that incorporate data analytics, fullstack development and efficient software management. My approach focuses on aligning deep technical skills with business goals to deliver impactful, efficient and innovative solutions.

## Skills

### Technical/Programming Skills

**Programming Languages:** Rust, Python, Javascript, SAS, Shell Scripting, Typescript, Lua, PHP, C#

**Backend Development:** Rust, Python, APIs / Web APIs, Node.js, Python Flask, Python Eve, oData, .NET Framework

**Geographic Information Systems (GIS):** PostGIS, IpeaGEO, ArcGIS Desktop

**Web/Frontend Development:** HTML, CSS, APIs / Web APIs, JSON, Javascript, Svelte/Sveltekit, Typescript, React.js, Firebase (Google), Wordpress, Joomla, Riot.js

**Software Development:** Agile methodologies, Git, Github, Gitlab, Algorithms and Data Structures (DSA), Test Driven Development (TDD)

### Infrastructure Management Skills

**DevOps and Infrastructure Management:** Github Actions, Shell Scripting, Docker, Vagrant, Continuous Integration/Continuous Delivery (CI/CD) pipelines

**Systems Administration:** Linux-based OS's, Servers and VPS's, System Security Management

**Server Software Management:** ESRI Geoportal Server, ArcGIS Collector, ArcGIS StoryMaps, ArcGIS Dashboards, ArcGIS App Builder

**Cloud:** Amazon AWS, Google Cloud Platform (GCP), Microsoft Azure, Linode, Digital Ocean, Wasabi Object Storage

### Data Engineering Skills

**Database Management & Storage:** Data Engineering, SQL, Data Analysis, MongoDB, MySQL / MariaDB, Redis, SQLite, PostgreSQL, Microsoft SQL Server, Data and Model Version Control

**Languages for Data Analysis and Manipulation:** Rust, Python, R, SAS

### Financial/Investment Skills

**Financial/Market Analysis:** Financial modeling, Finance, Risk assessment, Fundamental and technical analysis

**Investment Strategies:** Asset allocation, Portfolio management

**Financial Software:** Bloomberg Terminal

### Analytical/Research Skills

**Research Methodologies:** Optimization Methods, Quantitative Research, Qualitative Research

**Statistical Modeling and Methods:** Regression analysis, Time-series analysis, Econometrics, Forecasting Techniques

### Soft Skills

**Communication:** Excellent written and verbal communication

**Leadership:** Team leadership and project management, Project management, Technological Leadership

**Problem-Solving:** Creative and analytical approach to challenges

**Time Management:** Efficient in managing multiple tasks

**Collaboration:** Proven ability to work effectively in team environments

## Work Experience

### Software Engineer at Scale AI

03/2024 - Present

**Roles:** Software Developer / Software Engineer

**Projects:** Generative AI Data Engine

- Evaluating the quality of AI-generated code and creating human-readable summaries of the evaluations

- Solving a variety of coding problems to ensure code functionality and efficiency
- Developing robust test cases to validate the performance and effectiveness of the code
- Addressing various coding challenges to improve the training and performance of AI models
- Develop detailed instructions and prompts to guide the learning process of the AI model
- Idealize, create and review projects, codebases and documentation in Python, JavaScript and TypeScript

#### **Software Engineer, CTO and Co-founder at cwnt.io**

**10/2016 - Present**

**Roles:** Co-founder, CTO (Chief Technology Officer), Software Development Manager, Project Manager, Software Developer / Software Engineer, Systems Administrator, Technology Educator

**Projects:** Boletegg, Algorithmic Trading, Brag-Server, Ripissue, UAI Sveltekit Components Library

- Developed 'Boletegg', a React.js and Python based web app for rent billing and contract management to improve the operations of a family-run property management company.
- Created innovative trading algorithms using Rust, Python and R that improve decision making when trading assets and analyzing market data in real time
- Led and developed 'Brag-Server', an open-source Rust-based REST API for Git metrics built with PostgreSQL and Docker that improves visibility into repository activity.
- Developed 'Ripissue', an open-source CLI tool for Git issue tracking using Rust, which is used by Cwnt.io for project management and as the main issue tracker in its software development process to optimize distributed project management workflows.
- As co-founder, shaped the company's vision and strategic direction and drove innovation in technology solutions
- As CTO, aligned technology strategy with business objectives and led R&D initiatives for tech solution deployment.
- As Software Development Manager, oversaw the software development lifecycle and implemented coding best practices
- As a developer, developed and tested high quality software applications, ensuring they met user and business requirements
- As a system administrator, managed server configurations and system security and ensured the reliable delivery of services
- Imparted technical knowledge and project-specific skills, improving team skills as a technology educator

#### **Software Engineer and Technical Consultant at Seu Visto Certo**

**01/2015 - Present**

**Roles:** Software Developer / Software Engineer, Software Development Manager, Project Manager, Systems Administrator, Technology Educator

**Projects:** CRM Process Automation

- Developed and implemented the entire client assistance lifecycle automation, integrating sales processes with CRM tools and communication applications including Whatsapp Business API.
- Managed the software development lifecycle, ensuring project alignment with business objectives and incorporating best practices in coding, testing, and deployment.
- Oversaw project lifecycles from conception to completion, defining scopes, managing resources, and leading cross-functional teams.
- Managed server configurations and system security, handling service deployment, software maintenance, and routine task automation.
- Educated and shared technical knowledge with staff, focusing on project-specific skills and a range of technology subjects.

#### **Software Engineer and Technical Consultant at CADE**

**01/2018 - 01/2023**

**Roles:** Systems Analyst, Technology Educator, Data Analyst/Engineering, Software Developer / Software Engineer, Project Manager, Systems Administrator

**Projects:** Cadelab

**Teachings:** Svelte/Sapper Training Program, Python Eve Training Program

- Spearheaded and led the development of 'Cadelab', an interactive platform for economic competition analytics, utilizing Python Eve, Flask, and Svelte for advanced data visualization. Implemented MongoDB for database management, DVC for data version control, and employed Docker for containerized deployment, ensuring cutting-edge API services and efficient data updates.
- Coordinated and reviewed data ETL processes at CADE, playing a key role in programming statistical procedures and methods for calculating economic indicators. My responsibilities included data engineering, scripting for data manipulation, cleaning, aggregation, and implementing ETL workflows, alongside data analysis using R, Python, and PostgreSQL.
- Managed full software development cycles, ensuring project alignment with business goals, and mentored a team of developers in full-stack technologies.
- Directed project lifecycles, from concept to delivery, defining scopes and leading cross-functional teams for successful project execution.
- Handled systems administration duties, including server configuration, system security, and service deployment, ensuring robust and secure IT infrastructure.
- Designed and delivered training programs in Svelte/Sapper and Python Eve with MongoDB, enhancing team skills in SPA development and REST API construction.

#### **Software Engineer and Research Consultant at IPEA**

**10/2011 - 12/2019**

**Roles:** Data Analyst/Engineering, Academic Researcher, Software Developer / Software Engineer, Software Development Manager, Project Manager, Systems Analyst, Systems Administrator, Technology Educator

**Projects:** Data Analysis Reports, IpeaGEO, Ipea Data Extractor, Ipea Publishes, Ipea Projects, IpeaData, Portal of Metropolitan Governance in Brazil, IVS

**Teachings:** Riot.js Training Program

- Coordinated a multidisciplinary team of developers, data analysts, statisticians, and economists, ensuring effective collaboration and project delivery.
- Developed and enhanced 'IpeaGEO', a .NET C# application for spatial data analysis, improving GIS capabilities and geographic data interpretation.
- Directed the development of 'IpeaData', a prominent web application in Brazil for accessing public social and economic data. Employed the React.js and Riot.js framework and a SQL Server with a .NET C# Odata, and a MongoDB with a Python backend, enhancing the application's robustness and scalability.
- Managed the 'Ipea Data Extractor' project, utilizing Suite Pentaho, Mondrian, and Saiku over PostgreSQL for efficient data querying and aggregation.
- Led the 'Ipea Publica' project as project manager and system analyst, automating the review process of institutional publications and improving internal workflow efficiency.
- Oversaw 'Ipea Projetos', streamlining the management of organizational projects through effective system design and project coordination.
- Fulfilled multiple roles (developer, tech lead, and project manager) in the 'Atlas of Social Vulnerability' project, contributing to the development of a dynamic web platform for analyzing social data.
- Assumed similar roles (developer, tech lead, project manager) in 'Portal of Metropolitan Governance in Brazil', a project focused on regional development and governance data for economic analysis.
- Conducted comprehensive economic research data analysis and reporting, creating databases, reports, and charts to support various research studies.
- Delivered comprehensive Riot.js training, focusing on web development frameworks and frontend architecture, enhancing participant skills in building web applications.

**Consultant and Software Developer at IAED****10/2011 - 12/2017****Roles:** Data Analyst/Engineering, Software Developer / Software Engineer, Technology Educator, Academic Researcher**Projects:** ALM, Actuarial Flow, Future Rentability**Teachings:** SAS Enterprise Guide Training Program

- Served as a consultant, implementing projects like 'ALM', 'Actuarial Flow', and 'Future Rentability' for major banks, financial institutions, and pension funds in Brazil.
- Analyzed and developed financial models for 'ALM' using C#, .NET, R, SAS, and SQL, optimizing asset and portfolio management strategies.
- Led the 'Actuarial Flow' project as a developer and researcher, utilizing R, SAS, and SQL for actuarial data processing, significantly enhancing data accuracy and efficiency.
- Designed and implemented 'Future Rentability', a predictive model for asset performance using regression and econometric methods in R and SAS, improving long-term investment decisions.
- Conducted extensive qualitative and quantitative research, applying econometrics and optimization methods to generate insightful financial analyses.
- Facilitated 'SAS Guide Course' as a technology educator, imparting crucial data analysis skills using SAS to professionals, enhancing their analytical capabilities.

**Project Manager and Technology Coordinator at CERME****03/2015 - 12/2016****Roles:** Project Manager, Software Development Manager, Systems Analyst, Systems Administrator, Technology Educator**Projects:** ODR

- Executed the 'ODR' project for the Brazilian Government, serving as a hub for economic and social policy indicators. Provided an array of web-based solutions for detailed regional analysis, simplifying access to regional social, economic, and demographic data, and applying policy metrics to monitor the execution and outcomes of regional public policies.
- Oversaw the 'ODR' project as Technology Coordinator, managing project and development teams, and ensuring efficient systems analysis and administration.
- Led web development efforts using HTML, CSS, and JavaScript, enhancing online platforms and user interfaces.
- Administered server systems and ensured robust system security, utilizing Linux and system security tools.
- Implemented Geoportal and other GIS tools like ArcGIS Desktop, Collector, and StoryMaps for dynamic data visualization and analysis.
- Conducted technology education sessions on various tools including WordPress, Git, and Agile methodologies, enhancing team proficiency and project efficiency.

**General Coordinator at SDR****08/2014 - 02/2015****Roles:** Administrative Manager, Project Manager, Systems Administrator, Data Analyst/Engineering**Projects:** ODR**Teachings:** Speaker at LAUC 2014 - Esti Latin America User Conference: 'Regional Development Observatory (ODR)', Speaker at the VII Regional Symposium on Geoprocessing and Remote Sensing (GEONORDESTE): 'Geotechnologies as development strategies for the semi-arid: the Regional Development Observatory'

- Managed and administered the 'ODR' project, coordinating regional policy monitoring and evaluation.
- Utilized GIS tools such as ArcGIS Desktop for geographical data analysis, aiding in effective regional policy planning.
- Spearheaded database management and analysis using PostgreSQL, R, and SQL, ensuring accurate data-driven decision-making.
- Promoted Agile project management practices and Git for efficient team collaboration and project tracking.
- Acted as a speaker at LAUC and Geonordeste, sharing insights on regional policy evaluation and monitoring.

**Roles:** University Professor, Academic Researcher

**Teachings:** Quantitative Methods for Decision Making, Finances 1, Financial Calculus

- Taught courses in 'MMQD - Quantitative Methods and Operations Research', 'Finances 1', and 'Financial Calculus', leveraging expertise in financial modeling and econometrics.
- Conducted research and applied quantitative and qualitative methods, contributing to the field of finance and economics.
- Developed and utilized SAS, R, and Bloomberg tools for teaching and research, enhancing students' analytical and practical skills.
- Focused on optimization methods, forecasting, and regression analysis, guiding students through complex financial concepts.
- Engaged in asset, portfolio, and risk management studies, providing students with practical, industry-relevant knowledge.

## Education

**Title:** Doctor of Business Administration (Finance and Quantitative Methods) [Incomplete]

**University:** [University of Brasília \(Universidade de Brasília - UnB\)](#)

**Location:** Brasília, DF, Brazil

**Attended:** 2014 - 2017

**Notes:** Completed all coursework credits.

**Areas Of Study:** Operations Research, Optimization Methods, Pension Funds, Stochastic Models

**Title:** Master of Science in Business Administration (Finance and Quantitative Methods)

**University:** [University of Brasília \(Universidade de Brasília - UnB\)](#)

**Location:** Brasília, DF, Brazil

**Graduated:** 2013

**Dissertation Title:** Evidence of Underpricing and Underperformance in IPOs: An Empirical Study of the Brazilian Market.

**Areas Of Study:** Financial Economics, Empirical Finance, Brazilian Market Analysis

**Title:** Bachelor of Business Administration

**University:** [University of Brasília \(Universidade de Brasília - UnB\)](#)

**Location:** Brasília, DF, Brazil

**Graduated:** 2011

**Monograph Title:** Corporate Governance in Brazil: The Impact of Adherence to the Market Arbitration Chamber on the Risk of Publicly Traded Companies

**Areas Of Study:** Corporate Governance, Risk Management, Financial Markets

## Projects

### UAI Sveltekit Components Library

**Title:** UAI Sveltekit Components Library

**Project Nature:** UI Component Library, SvelteKit Integration, Vite Integration, Storybook Documentation, Open-Source Software Project (OSS)

**Description:** An open-source SvelteKit UI library with reusable components for modern web apps. This library is a set of pre-built components to build SvelteKit and Vite applications and includes documentation and examples through Storybook, this package improves development productivity.

**Links:** [GitHub UAI Components](#), [NPM Package uai-components](#), [Storybook Documentation](#)

### Generative AI Data Engine

**Title:** Scale's AI Generative AI Data Engine

**Project Nature:** Data Curation and Generation Platform, Quality Control and Model Evaluation System, AI Model Training Infrastructure

**Description:** A platform that accelerates the creation of high-quality, tailored datasets for training advanced generative AI models. This project is developed with a combination of automation, expert human intelligence, and a global network of subject matter experts.

**Links:** [Generative AI Data Engine](#)

### Brag-Server

**Title:** Brag-Server: Git Repository Metrics REST API in Rust

**Project Nature:** REST API Development, Git Repository Metrics Tool, Data Management and Analysis, Open-Source Software Project (OSS)

**Description:** An open-source UI library with reusable components for apps built with SvelteKit and Vite. A collection of elements that help to create modern web apps with SvelteKit and Vite. It provides documentation and a showcase of the components through Storybook, helping to speed up development.

**Links:** [Brag-Server Github](#), [Deployed working API](#), [serving data for gubasso.xyz](#)

### Ripissue

**Title:** Ripissue: CLI Tool for Issue Tracking

**Project Nature:** CLI Tool for Issue Tracking, Project Management Tool, Task and Sprint Organization Tool, Distributed Workflow Implementation, Open-Source Software Project (OSS)

**Description:** Ripissue is a Rust-based command-line interface (CLI) tool for issue management within Git repositories. It defines a simple file structure and workflow convention that you can use to manage issues, tasks, sprints, epics and initiatives. Ripissue achieves this by using only Git and the file system. With Ripissue, you can have distributed issue management in Git repositories and on your file system while the tool maintains git-like workflows, self-document development in the repository itself, conventionalized file structures, and easier tracking of issue states.

**Links:** [Ripissue Github](#), [Ripissue Crates.io](#)

## **gubasso.xyz**

**Title:** gubasso.xyz: Personal Web Portfolio and Blog.

**Project Nature:** Personal Portfolio Website, Blogging Platform, Git Repository Analytics Display, Professional Showcase, Resume and Project Repository, Open-Source Software Project (OSS)

**Description:** A SvelteKit-based website, gubasso.xyz serves as my tech portfolio and blog. It integrates with a Brag-Server (brag.gubasso.xyz) API to exhibit a chart of my yearly Git contributions across all public projects. The site also features an ATS-optimized resume, detailed project showcases, and a blog where I share insights on software engineering and tech trends. It's a comprehensive platform reflecting my skills, experiences, and professional journey in software development.

**Links:** [gubasso.xyz](#), [Github](#)

## **Leetcode**

**Title:** LeetCode Solutions: Rust, TypeScript, and Python

**Project Nature:** Algorithm Practice Workspaces, Coding Interview Preparation, LeetCode Problem Solutions, Rust, TypeScript, Python Programming

**Description:** This project comprises three separate repositories, each dedicated to solving LeetCode problems in a specific programming language: Rust, TypeScript, and Python. Each repository is a tailored workspace that replicates the LeetCode web environment locally, enabling me to practice and master algorithms for job interviews. The setup includes test structures for algorithm validation. This collection demonstrates my focus on Rust, while also showcasing my versatility in TypeScript and Python, and my ability to create efficient, language-specific development environments.

**Links:** [Github Rust Workspace](#), [Github Typescript Workspace](#), [Github Python Workspace](#), [LeetCode Gubasso's Profile](#)

## **docs-n-notes**

**Title:** docs-n-notes: Personal Repository for Documentation and Note Taking

**Project Nature:** Documentation Tool, Note-Taking Application, Knowledge Management System, Personal Productivity Tool, Digital Repository

**Description:** undefined

**Links:** [Github](#)

## **Dotfiles**

**Title:** Dotfiles: Customized Environment Setup

**Project Nature:** Arch Linux, Neovim, Tmux, Configuration Files Repository, Unix-based System Customization, Development Environment Setup, Lua and Shell Scripting

**Description:** My personal dotfiles, representing a curated collection of configuration files for Unix-based systems. It includes Lua and Shell scripts, enabling a customized and efficient development environment. This project showcases my setup preferences for various tools and software, offering insights into my workflow and methodologies. It's also a resource for other developers looking to optimize their own environments, demonstrating practical applications of scripting for system customization.

**Links:** [Github](#)

## **Cadelab**

**Title:** Cadelab: Interactive Platform for Economic Competition Analytics

**Project Nature:** Full Stack Technologies, Economic Data Visualization and Analytics Platform, REST API for Economic Indicators and Public Data, Automated Data Workflow System, Data Engineering and ETL Processes Tool

**Description:** Interactive platform designed for economic competition analytics, featuring a frontend web application that displays data and indicators relevant to market competition. The frontend showcases data through visual components and charts for easy interpretation. On the backend, it employs Python Eve and Flask frameworks to power a REST API serving up-to-date public data. The platform includes an automated data workflow to sync and update sources, coupled with data engineering scripts for ETL processes, generating aggregated data and essential indicators.

**Links:** [Cadelab \(Version Alpha\)](#), [Cadelab Data REST API](#)

## **IpeaData**

**Title:** IpeaData

**Project Nature:** Data Repository Platform, Web Application, Web API, Data Analysis and Visualization Tool, Metadata Management System

**Description:** IpeaData is a versatile web platform and API offering a rich repository of various public data sets, including economic, financial, demographic, geographic, and social statistics. It features robust data processing capabilities, such as extraction, organization, cleaning, and aggregation from diverse sources. The platform presents data in intuitive charts and provides detailed metadata for deeper insights. This comprehensive project entailed revamping the original version to enhance data accessibility and visualization, catering to a wide range of users.

**Links:** [IpeaData Gitlab](#), [IpeaData Gov.br](#), [IpeaData Ipea](#), [IpeaData API](#), [IpeaData First Version](#)

## IVS

**Title:** Atlas of Social Vulnerability (IVS - Atlas da Vulnerabilidade Social)

**Project Nature:** Web Portal for Social and Economica Data, Data Visualization Platform, Social Analysis Tool, Joomla CMS-Based Web Application

**Description:** Dynamic web platform designed to display and analyze social vulnerability data in Brazil. Built on top of Joomla CMS, it offers user-friendly visualization of the IVS index and related social data through charts and other accessible formats. The platform's main objective is to make complex social vulnerability information easily understandable and accessible to the public, aiding in social analysis and policy-making.

**Links:** [Atlas da Vulnerabilidade Social - IVS](#), [IVS Ipea](#)

## Portal of Metropolitan Governance in Brazil

**Title:** Portal of Metropolitan Governance in Brazil (Portal da Governança Metropolitana no Brasil)

**Project Nature:** Web Portal for Metropolitan Data, Regional Governance and Policy Analysis Tool, Economic and Social Data Repository, Joomla CMS-Based Web Application

**Description:** Specialized web platform designed to offer in-depth access to a range of economic and social data, indicators, and studies focused on Brazil's metropolitan regions. Built on Joomla CMS, this platform is dedicated to facilitating the understanding and analysis of metropolitan area data, emphasizing regional development and governance. It serves as a valuable tool for researchers, policymakers, and the public interested in the dynamics of Brazil's urban centers.

**Links:** [Portal da Governança Metropolitana no Brasil](#)

## Algorithmic Trading

**Title:** Automated Asset Trading Algorithms

**Project Nature:** Financial Algorithm Development, Automated Trading System, Real-Time Market Data Analysis, Financial Data Repository Management

**Description:** Algorithms for automating decision-making in asset trading. Key features include real-time data reading from various assets and markets, creating a suite of indicators based on price movements, and developing algorithmic strategies for autonomous buying and selling of assets. Additionally, a comprehensive data repository was established to facilitate the creation and optimization of these trading strategies.

## Boleteggs

**Title:** Boleteggs: Rental Billing & Contract Management Web App

**Project Nature:** Rental Billing and Contract Management Web Application, API Integration for Automated Billing, Tenant Management System

**Description:** Web application designed for rental billing and contract management. It facilitates the generation and management of rental contracts, integrating with Gerencianet's billing API for automatic document creation. The app provides efficient tenant billing management and is developed as a React-based single-page application (SPA) and a Python REST API, enhancing user experience and operational efficiency.

## ODR

**Title:** Regional Development Observatory (ODR - Observatório Do Desenvolvimento Regional)

**Project Nature:** Web Platform, GIS Applications, Full Stack Technologies

**Description:** Advanced web platform that leverages ArcGIS technology to provide comprehensive regional and spatial data. It serves as a hub for economic and social policy indicators, offering an array of web-based solutions for detailed regional analysis.

**Links:** [ODR MI](#), [Gov.br ODR](#)

## CRM Process Automation

**Title:** Client Assistance Process Automation

**Project Nature:** Process Automation System, CRM Integration Solution, Client Communication Management Tool, Sales Workflow Automation

**Description:** Automating an entire client assistance process, encompassing pre-sale, sale, and post-sale stages. It involved the integration of the sales process with CRM tools and communication applications, and a backend implementation for managing data and message distribution between the Whatsapp Business API, CRM, and other management tools.

## Ipea Projects

**Title:** Ipea Projects (Ipea Projetos)

**Project Nature:** Project Management System, Institutional Initiative Tracker, Organizational Coordination Tool

**Description:** Internal institutional system developed for the comprehensive management of all organizational projects and initiatives at Ipea. It streamlines the coordination, monitoring, and administration of various projects, ensuring efficient management and tracking of institutional efforts.

## Ipea Data Extractor

**Title:** Ipea Data Extractor (Ipea Extrator de Dados)

**Project Nature:** Data Query and Aggregation Platform, Public Data Repository, Custom Data Table Builder, Business Intelligence Tool

**Description:** Web platform designed for querying, aggregating, and collecting a diverse array of data. Utilizing technologies like Suite Pentaho, Mondrian, and Saiku, it provides access to public databases, research content, indicators, and historical

data series. The platform's unique feature allows users to construct their own data tables, offering flexibility in aggregating and cross-combining data to suit specific analysis needs.

**Links:** [Ipea Extrator de Dados](#), [App Extrator de Dados](#)

**Ipea Publishes**

**Title:** Ipea Publishes (Ipea Publica)

**Project Nature:** Internal Publication Management System, Document Review and Standardization Tool, Workflow Automation Application

**Description:** Internal web application specifically designed to streamline and standardize the review process for institutional publications at Ipea. It serves as an automation tool, significantly enhancing the efficiency and consistency of how Ipea's publications are managed and reviewed.

**IpeaGEO**

**Title:** IpeaGEO: Spatial Data Analysis

**Project Nature:** Spatial Data Analysis Software, GIS Application, Map Visualization and Generation Tool

**Description:** Windows desktop application developed in .NET C# for advanced spatial data analysis. It specializes in the manipulation and georeferencing of spatial data, offering GIS capabilities. The software enables users to visualize and generate maps, facilitating comprehensive geographic information system analysis and data interpretation.

**Links:** [IpeaGEO](#), [GitHub IpeaGEO](#)

**Future Rentability**

**Title:** Automated Future Rentability Estimation for ALM models

**Project Nature:** Financial Modeling Tool, Analytics System

**Description:** Innovative system for automated future rentability estimation in Asset-Liability Management (ALM) models. This solution has been implemented in major Brazilian pension funds, enhancing asset allocation and portfolio management strategies.

**Actuarial Flow**

**Title:** Automated Deterministic and Stochastic Actuarial Flow for ALM models

**Project Nature:** Actuarial Analysis Tool, Financial Forecasting System

**Description:** Solution for automating both deterministic and stochastic actuarial flows in Asset-Liability Management (ALM) models. This tool has been effectively integrated into some of Brazil's major pension funds, aiding in strategic asset allocations and enhancing portfolio policy decisions.

**ALM**

**Title:** Automated Asset-Liability Management Model for Pension Funds

**Project Nature:** Financial Management System, Asset Allocation Tool

**Description:** System for the automated management of asset-liability in pension funds, utilizing an ALM model to optimize asset allocation. This system has been adopted by major pension funds, significantly improving their asset management strategies

**Data Analysis Reports**

**Title:** Economic Research Data Analysis and Reporting

**Project Nature:** Economic Research Reporting, Data Analysis and Visualization, Script-Based Data Collection and Processing Tool

**Description:** Creation of comprehensive databases, studies, and reports for economic research. It involves the generation of reports, data sets, and charts to support research and studies. The project also includes the development of scripts for efficient data collection and processing, as well as statistical and spatial analyses to enrich economic research efforts

**Roles**

**Co-founder**

- Shaped and communicated the company's vision, mission, and culture.
- Guided strategic planning and decision-making to drive growth and development.

**CTO (Chief Technology Officer)**

- Directed overall technology strategy, aligning it with business goals.
- Managed the company's R&D initiatives and technological infrastructure.
- Oversaw the development and implementation of tech solutions.

**Software Development Manager**

- Managed the full software development lifecycle, ensuring alignment with project and business objectives.
- Implemented coding, testing, and deployment best practices.
- Led and mentored a team of software developers and engineers.

**Project Manager**

- Oversaw project lifecycles from inception to completion.
- Defined project scopes, set objectives, and managed resources.



- Coordinated and led cross-functional project teams.

### **Software Developer / Software Engineer**

- Developed and tested software applications.
- Created solutions meeting both user and business requirements.
- Ensured code quality and implemented best practices.

### **Systems Administrator**

- Managed server configurations and system security.
- Handled service deployment and software maintenance.
- Administered security protocols and automated routine tasks.

### **Technology Educator**

- Taught a range of technology subjects.
- Shared project-specific knowledge with technical staff.

### **Administrative Manager**

- Managed teams and contracts.
- Standardized organizational processes and documentation.
- Implemented agile methodologies for operational efficiency.

### **Data Analyst/Engineering**

- Handled data inspection, cleaning, and modeling.
- Performed data collection and statistical analysis.
- Developed ETL scripts and applied statistical methods for data analysis.

### **Systems Analyst**

- Analyzed business needs and documented technical requirements.
- Designed and evaluated technology solutions.

### **University Professor**

- Taught academic courses and conducted research.

### **Academic Researcher**

- Engaged in scholarly research and academic contributions.

## **Publications**

**Title:** Spatial and Non-Spatial Clustering: An Applied Study to Brazilian Agriculture. Discussion Papers 2279, Institute for Applied Economic Research - IPEA. [\[Access Link\]](#)

**Area:** Economics and Quantitative Methods

**Title:** How beautiful but wrong answers put the world in crisis again. Periodic Democratic Policy. 2011.

**Area:** Economics and Finance

**Title:** ODR Bulletin: Regional Development Observatory. [\[Access Link\]](#)

**Area:** Regional Development and Policy Analysis

## **Teachings**

- **Speaker at the VII Regional Symposium on Geoprocessing and Remote Sensing (GEONORDESTE): 'Geotechnologies as development strategies for the semiarid: the Regional Development Observatory'**
- **Speaker at LAUC 2014 - Esti Latin America User Conference: 'Regional Development Observatory (ODR)'**
- **SAS Enterprise Guide Training Program** : Conducted tailored training on SAS Enterprise Guide for pension funds staff.
- **Riot.js Training Program** : Delivered training on Riot.js and general-purpose JavaScript frameworks for web development.
- **Svelte/Sapper Training Program** : Taught Svelte for SPA development and Sapper for hybrid SPA/MPA architectures.
- **Python Eve Training Program** : Instructed on building Python Web REST APIs using Eve, Flask and MongoDB integration.
- **Quantitative Methods for Decision Making** : Taught graduate-level operations research, quantitative analysis, and statistical methods for decision-making.
- **Finances 1** : Introductory course on corporate finance, financial markets, and investment analysis.
- **Financial Calculus** : Foundational finance course covering basic concepts like interest rates and investment returns.

## **Languages**

- **Portuguese:** native
- **English:** advanced

## **Companies**



## Scale AI

**Company:** Scale AI

**Location:** San Francisco, CA, US

**Links:** [Scale AI](#)

## Seu Visto Certo

**Company:** Seu Visto Certo

**Location:** Willow Park, TX, US

**Links:** [Seu Visto Certo](#)

## cwnt.io

**Company:** cwnt.io (Crown and Trunk Technologies)

**Location:** Brasília, DF, Brazil

**Links:** [cwnt.io Github](#), [cwnt.io LinkedIn](#)

## CADE

**Company:** Administrative Council for Economic Defense (CADE - Conselho Administrativo de Defesa Econômica)

**Location:** Brasília, DF, Brazil

**Links:** [CADE](#)

## IPEA

**Company:** Institute for Applied Economic Research (IPEA - Instituto de Pesquisa Econômica Aplicada)

**Location:** Brasília, DF, Brazil

**Links:** [IPEA](#)

## IAED

**Company:** Institute of Economic Analysis of Law (IAED - Instituto de Análise Econômica do Direito)

**Location:** Brasília, DF, Brazil

**Links:** [IAED LinkedIn](#)

## CERME

**Company:** Center for Market Regulation Studies, University of Brasilia, UnB (CERME - Centro de Estudos em Regulação de Mercados, Universidade de Brasília, UnB)

**Location:** Brasília, DF, Brazil

**Links:** [Centros UnB](#), [CERME](#), [Centros UnB: CERME](#)

## SDR

**Company:** National Secretariat for Regional Development, Ministry of Integration and Regional Development (SDR - Secretaria Nacional de Desenvolvimento Regional, Ministério da Integração e do Desenvolvimento Regional)

**Location:** Brasília, DF, Brazil

**Links:** [SDR](#)

## UnB

**Company:** University of Brasília (UnB - Universidade de Brasília)

**Location:** Brasília, DF, Brazil

**Links:** [UnB](#)