

Resume / CV

Contact Information

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Professional Summary

Senior Software Engineer and Technology Leader with over a decade of experience driving innovation and delivering high-impact solutions across diverse industries. Proven expertise in Rust, Python, JavaScript/TypeScript, Web3, and distributed architectures to build scalable, secure, and performant applications. Adept at leading cross-functional teams, aligning technology strategy with business objectives, and fostering a culture of excellence. Proficient in a wide range of domains including backend development, blockchain, data engineering, cloud infrastructure, and designing distributed systems architectures. Strong foundation in financial modeling, quantitative analysis, and economic research, enabling data-driven decision-making and strategic insights. Recognized for effectively communicating complex technical concepts and collaborating with stakeholders at all levels. Passionate about continuous learning, mentoring, and contributing to the technology community through open-source projects, blog posts, and educational content. Committed to leveraging technology to drive positive change and solve real-world challenges.

Work Experience

Software Engineer at Scale AI	#scaleai	03/2024 - Present
Roles:	#bromdt-engineer #software-engineer #programming-task-designer-evaluator-ai	
Projects:	#generative-ai	
Software Engineer, Tech Lead, CTO and Co-founder at cwnt.io (Crown and Trunk Technologies)	#cwnt	10/2016 - Present
Roles:	#co-founder #cto #software-engineer #devops-engineer #prompt-engineer #tech-lead #project-manager #distributed-systems-architect #sysadmin #technology-educator	
Projects:	#iac-cwnt #ripissue #brag-server #candid-gen #uai-components #boleteggs #algos	
Software Engineer and Technical Consultant at Seu Visto Certo	#vistocerto	01/2015 - Present
Roles:	#software-engineer #tech-lead #project-manager #sysadmin #technology-educator	
Projects:	#client-process-automation	
Tech Enthusiast (not a job role, just me studying what I love!) at Personal Initiatives and Projects	#personal-projects	03/2011 - Present
Roles:	#software-engineer #prompt-engineer #sysadmin #technology-educator #data-engineer-analyst #researcher #devops-engineer	
Projects:	#docs-n-notes #gubasso-xyz	
Software Engineer and Technical Consultant at Administrative Council for Economic Defense (CADE - Conselho Administrativo de Defesa Econômica)	#cade	01/2018 - 01/2023
Roles:	#software-engineer #devops-engineer #distributed-systems-architect #tech-lead #project-manager #sysadmin #systems-analyst #data-engineer-analyst #technology-educator	
Projects:	#cadelab	
Software Engineer and Research Consultant at Institute for Applied Economic Research (IPEA - Instituto de Pesquisa Econômica Aplicada)	#ipea	10/2011 - 12/2019
Roles:	#software-engineer #tech-lead #project-manager #devops-engineer #distributed-systems-architect #sysadmin #systems-analyst #data-engineer-analyst #technology-educator #researcher	
Projects:	#ipeadata #ipeageo #ipea-extrator #ivs #brasil-metropolitano #ipea-publica #ipea-projetos #data-analysis-reports	
Consultant and Software Engineer at Institute of Economic Analysis of Law (IAED - Instituto de Análise Econômica do Direito)	#iaed	10/2011 - 12/2017
Roles:	#financial-technology-consultant #data-engineer-analyst #software-engineer #technology-educator #researcher	
Projects:	#alm #future-rentability #actuarial-flow	
Project Manager and Technology Leader at Center for Market Regulation Studies, University of Brasília, UnB (CERME - Centro de Estudos em Regulação de Mercados, Universidade de Brasília, UnB)	#cerme	03/2015 - 12/2016
Roles:	#project-manager #tech-lead #systems-analyst #distributed-systems-architect #sysadmin #technology-educator	
Projects:	#odr	
General Coordinator at National Secretariat for Regional Development, Ministry of Integration and Regional Development (SDR - Secretaria Nacional de Desenvolvimento Regional, Ministério da Integração e do Desenvolvimento Regional)	#sdr	08/2014 - 02/2015
Roles:	#manager-admin #project-manager #sysadmin #data-engineer-analyst #researcher	
Projects:	#odr	
University Professor and Researcher at University of Brasília (UnB - Universidade de Brasília)	#unb	01/2012 - 12/2014
Roles:	#professor #researcher	
Projects:	#financial-analytics-lab	

Projects

IaC for Cwnt.io
#iac-cwnt
Title: Infrastructure as Code (IaC) for Cwnt.io
Skills: #ansible #terraform #python #linux
Summary: Development and automation of the entire infrastructure for Cwnt.io using Infrastructure as Code (IaC) tools and methods with Terraform and Ansible.

- Server, backup, and monitoring automation.
- Automated the creation and management of VPS and services using Terraform.
- Configured and set up servers using Ansible.
- Programmed functionalities and routines using Ansible playbooks and roles.
- Implemented full automation with secure SSH setup, using Ansible Vault and gopass for access, password, and permissions management.
- Enabled dynamic configuration through the use of templates.
- Integrated Python and shell scripts to enhance IaC with personalized modules and libraries.
- Developed roles and playbooks for setting up backup routines, monitoring tools, and notification services.

candid-gen
#candid-gen
Title: candid-gen: Candid Generation CLI Tool
Skills: #rust #smart-contracts #backend #tdd #github #open-source
Summary: `candid-gen` is a CLI tool built with Rust that automates the generation of Candid IDL from Rust canisters (smart-contracts) for Internet Computer (IC) blockchain projects (web3).

- Cli tool.
- ICP Dapps development tool.
- Simplifies the process of creating `.did` files for IC Web3 projects.
- Ensures that Rust canisters are properly documented and ready for deployment.
- Interacts with Rust, Cargo, and `candid-extractor`.
- Supports specifying individual canisters or generating files for all canisters in a project.

Links: [GitHub Repository](#) , [Crates.io](#) .

UAI Sveltekit Components Library

#uai-components

Title: UAI Sveltekit Components Library

Skills: [#svelte](#) [#javascript](#) [#typescript](#) [#html](#) [#css](#) [#nodejs](#) [#tdd](#) [#agile](#) [#github-actions](#) [#github](#) [#ci-cd](#) [#open-source](#)

Summary: An open-source SvelteKit UI library with reusable components for modern web apps for faster and more consistent web application development. Built using Javascript and Typescript.

- Ui component library.
- Set of pre-built components such as Badge, Card, Collapsible, Dialog, Dropdown, EmojiPicker, Form, Icon, Kanban, ChatInput, MessageBox, Modal, PickerColor, SideMenu, and form fields.
- Fully integrated with SvelteKit and Vite.
- Documentation and examples provided via Storybook for easy reference and implementation.
- Available as an npm package. Easy installation and updates.

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

Generative AI Data Engines

#generative-ai

Title: Scale's AI Generative AI Data Engines

Skills: [#python](#) [#javascript](#) [#typescript](#) [#dsa](#) [#system-architecture](#)

Summary: Platforms that accelerate the creation of high-quality, tailored datasets for training advanced generative AI models, including code generation in many languages such as Javascript, Typescript, Python, and SQL.

- Development of custom datasets for advanced AI models through automation and expert curation.
- Working with various programming languages in our interactions with each LLM, including JavaScript, TypeScript, Python, SQL, HTML/CSS, etc.
- Provided real-time insights into data collection and curation processes to ensure the highest quality of training data.
- Access to a global network of experts, linguists, and coders to construct datasets.
- Enhanced efficiency and cost-effectiveness in dataset creation, significantly shortening the development cycle for AI models.
- Proactively identified and addressed model weaknesses through targeted red-teaming, leading to robust and reliable AI systems.
- A combination of automation, expert human intelligence, and a global network of subject matter experts.

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

Brag-Server

#brag-server

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

Skills: [#rust](#) [#sql](#) [#git](#) [#github](#) [#apis](#) [#shell-scripting](#) [#docker](#) [#postgresql](#) [#open-source](#)

Summary: Brag-Server is an open-source REST API, written in Rust, designed to load, update, and serve data from Git repositories. It retrieves and manages repository metrics, offering JSON-formatted data for client applications. The project provides valuable insights into Git repository activities.

- Rust-based REST API, to manage and serve Git repository metrics.
- Implemented metrics retrieval and data management using Rust, Git, PostgreSQL, and Docker.
- Designed for public repositories on GitHub and GitLab, provide a fully feature-rich open source tool for repository insights.

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

Ripissue

#ripissue

Title: Ripissue: CLI Tool for Issue Tracking

Skills: [#rust](#) [#git](#) [#tdd](#) [#open-source](#)

Summary: Ripissue is a Rust-based command-line interface (CLI) tool for issue tracking and 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.

- Rust/Git-based CLI for issue tracking and issue management workflows.
- An open-source tool allowing facilitated, distributed workflow, adoptable to any project and team size.
- Uses only Git and the file system to manage and distribute the issue and project state.
- Self-document code in development alongside the correspondent issue by implementing conventionalized file structures, and easier tracking of issue states.

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

gubasso.xyz

#gubasso-xyz

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

Skills: [#svelte](#) [#html](#) [#css](#) [#javascript](#) [#git](#) [#github](#) [#github-actions](#) [#open-source](#)

Summary: A SvelteKit-based personal website, gubasso.xyz serves as my tech portfolio and blog.

- A personal portfolio and blog using SvelteKit and deployed at Github Pages with a CI/CD pipeline using Github Actions.
- Integrated 'Brag-Server' (brag.gubasso.xyz), a Rust backend web API for displaying Git contribution metrics.
- Web platform that showcases my skills, experiences, and professional journey in technology and software engineering.
- Features an ATS-optimized resume, detailed project showcases, and a blog where I share insights on software engineering and tech trends

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

Cadelab

#cadelab

Title: Cadelab: Web Platform for Economic Competition Analytics

Skills: [#python](#) [#python-flask](#) [#optimization-methods](#) [#sql](#) [#postgresql](#) [#mongodb](#) [#dvc](#) [#svelte](#) [#riotjs](#) [#html](#) [#css](#) [#iavascript](#) [#tvnascript](#) [#nodejs](#) [#linux](#) [#sysadmin](#) [#scripting](#) [#git](#) [#gitlab](#) [#gitlab-ci](#) [#apis](#) [#ci-cd](#) [#docker](#) [#vagrant](#) [#system-architecture](#) [#agile](#) [#tdd](#)

Summary: Cadelab is a full stack web platform, built with Svelte, Python and MongoDB, designed for economic competition analytics. Ergonomically displays data and indicators relevant to market competition.

- Economic data visualization and analytics platform.
- Frontend web application developed with Riot.js and Svelte that showcases data through visual components and charts for easy interpretation.
- Backend web API built with Python Flask, MongoDB and PostgreSQL provides a REST API service with up-to-date data and indicators.
- Implemented Python algorithms to calculate economic indicators efficiently from large data-sets in real-time.
- Implemented ETL automated processes with R and Python.
- Utilized DVC for data and model version control, ensuring data integrity.
- The platform includes an automated data workflow to sync and update sources, coupled with data engineering scripts for ETL processes
- Deployed and managed the web application and services with Docker on self-managed servers (VPS's) at testing and staging environments.

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

IpeaData

#ipeadata

Title: IpeaData

Skills: [#python](#) [#python-flask](#) [#data](#) [#dotnet](#) [#csharp](#) [#sql](#) [#react](#) [#riotjs](#) [#html](#) [#css](#) [#iavascript](#) [#tvnascript](#) [#git](#) [#gitlab](#) [#gitlab-ci](#) [#apis](#) [#nodejs](#) [#r](#) [#docker](#) [#mongodb](#) [#sqlserver](#) [#econometrics](#) [#tdd](#) [#system-architecture](#) [#agile](#) [#open-source](#)

Summary: IpeaData is a web platform built with React.js and Riot.js frameworks, and data API over .NET C# oData and Python Flask backends that offers a rich repository for various public data sets, including economic, financial, demographic, geographic, and social statistics.

- Data analysis and visualization tool.
- Metadata management system.
- Revamped IpeaData's first published release into a modern web application to enhance data accessibility and visualization, catering to a wide range of users.
- Features robust data processing capabilities, such as extraction, organization, cleaning, and aggregation from data diverse sources.
- Presents data in intuitive charts and provides detailed metadata for deeper insights.
- Used React.js and Riot.js for frontend web application.
- Backend web API developed using .NET, C#, oData, Microsoft SQL Server, Python Flask, and MongoDB.
- Managed data extraction, production, manipulation, and cleaning using R and SQL.
- Enhanced data accessibility and visualization of public datasets for economic and social analysis.

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

IVS

#ivs

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

Skills: [#joomla](#) [#php](#) [#html](#) [#css](#) [#javascript](#) [#apis](#)

Summary: Web platform to display and analyze social vulnerability data in Brazil. Built on top of Joomla CMS to offers user-friendly visualization of the IVS index and related social data through charts and other accessible formats.

- Web portal for social and economica data.
- Data visualization platform.
- Social analysis tool.
- Built with Joomla CMS, JavaScript, CSS, and HTML.
- Aided in social analysis and policy-making with accessible data and visualization formats.

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

Portal of Metropolitan Governance in Brazil

#brasil-metropolitano

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

Skills: [#joomla](#) [#php](#) [#html](#) [#css](#) [#javascript](#) [#apis](#)

Summary: Web platform built with Joomla CMS, that offers in-depth access to a range of economic and social data, indicators, and studies focused on Brazil's metropolitan regions.

- Web portal for metropolitan data.
- Regional governance and policy analysis tool.
- Economic and social data repository.
- Built with Joomla CMS, JavaScript, CSS, and HTML.
- Dedicated to facilitate the understanding and analysis of metropolitan area data, emphasizing regional development and governance
- Provided valuable tools for researchers, policymakers, and the public.

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

Algorithmic Trading

#algos

Title: Automated Asset Trading Algorithms

Skills: [#rust](#) [#python](#) [#sql](#) [#linux](#) [#git](#) [#apis](#) [#linode](#) [#hostinger](#) [#r](#) [#shell-scripting](#) [#docker](#) [#ci-cd](#) [#devops](#) [#dsa](#) [#redis](#) [#postgresal](#) [#fundamental-technical-analysis](#) [#portfolio](#) [#optimization-methods](#) [#asset-allocation](#) [#time-series-analysis](#) [#econometrics](#) [#forecasting](#) [#quantitative](#) [#tdd](#) [#system-architecture](#) [#financial-modeling](#) [#agile](#)

Summary: Infrastructure, support systems, and algorithms for automatic decision-making in asset trading built using Rust, Python, R, Docker, PostgreSQL and Redis.

- Real-time data reading from various assets and markets, including Crypto Exchanges (Web3 crypto assets), B3 Brazilian Exchange, Forex, and others.
- Creating a suite of indicators based on price movements
- Automated trading algorithmic strategies for autonomous buying and selling of assets
- Creation and management of a data repository to support the creation and optimization of the trading strategies with PostgreSQL and Redis.
- Utilized R, Python, and Rust for real-time market data analysis and strategy development.
- Created a suite of indicators over asset and market data to improve trading efficiency.

Boleteggs

#boleteggs

Title: Boleteggs: Rental Billing & Contract Management Web App

Skills: [#react](#) [#html](#) [#css](#) [#iavascript](#) [#pvthon](#) [#pvthon-flask](#) [#mongodb](#) [#firebase](#) [#linux](#) [#git](#) [#gitlab](#) [#gitlab-ci](#) [#apis](#) [#nodejs](#) [#digital-ocean](#) [#vagrant](#)

Summary: Boleteggs is a React.js SPA web application designed for rental billing and contract management. It facilitates the generation and management of rental contracts, and integrates with third parties billing APIs for automatic document creation.

- Rental billing and contract management web application.
- Developed with React.js, Python Flask, MongoDB, and Firebase.
- Integrated with third-party billing platforms.
- Tenant management system with API integration for automated billing.

docs-n-notes

#docs-n-notes

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

Skills: [#git](#) [#github](#) [#open-source](#)

Summary: Digital repository for documentation and note-taking, implementing organizational methods and conventions, using Git for version control and content management.

- Documentation and note-taking resource.
- Digital repository for personal productivity resource.
- Utilizes Git for version control and content management.

Links: [Github](#) .

Dotfiles

#dotfiles

Title: Dotfiles: Customized Environment Setup

Skills: [#lua](#) [#shell-scripting](#) [#git](#) [#github](#) [#open-source](#)

Summary: My personal dotfiles with a collection of configuration files for my Arch Linux systems.

- Collection of config files for applications such as Neovim, Tmux, Alacritty, DWM, and others.
- Utilized Lua and Shell scripts for a personalized and efficient development environment.
- This project showcases my setup preferences for various tools and software, offering insights into my workflow and methodologies
- A resource for other developers looking to optimize their own environments, demonstrating practical applications of scripting for system customization

Links: [Github](#) .

ODR

#odr

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

Skills: [#r](#) [#sql](#) [#html](#) [#css](#) [#javascript](#) [#linux](#) [#git](#) [#gitlab](#) [#apis](#) [#shell-scripting](#) [#vagrant](#) [#postgresal](#) [#postgis](#) [#wordpress](#) [#svstem-architecture](#) [#arcgis-desktop](#) [#arcgis-geoportal](#) [#arcgis-collector](#) [#arcgis-storymaps](#) [#arcgis-dashboards](#) [#arcgis-app-builder](#) [#agile](#)

Summary: Web platform, leveraged by ESRI/ArcGIS Suite, to provide comprehensive regional and spatial data. Provides an array of web-based solutions for detailed regional analysis, simplifies access to regional, social, economic, and demographic data, and applies policy metrics to monitor the execution and outcomes of public policies.

- Web platform and GIS applications.
- Developed using PostgreSQL for data management, and ArcGIS services for spatial data analysis and visualization.
- Executed and automated data analysis flows using R and SQL to generate economic and social policy reports and studies.

- Designed website interfaces using WordPress and HTML/CSS/JS for data visualization and accessibility.
- Aided the Brazilian Government in policy evaluation by offering web-based solutions for detailed regional analysis, and intuitive access to economic and social data.
- Deployed and managed databases services and ArcGIS applications on Windows and Linux-based servers.

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

CRM Process Automation

#client-process-automation

Title: Client Assistance Process Automation

Skills: [#python](#) [#python-flask](#) [#nodejs](#) [#mongodb](#) [#svelte](#) [#html](#) [#css](#) [#javascript](#) [#linux](#) [#git](#) [#gitlab-ci](#) [#ddd](#) [#apis](#) [#aws](#) [#shell-scripting](#) [#docker](#) [#ci-cd](#) [#devops](#)

Summary: System to automate entire client assistance process, encompassing pre-sale, sale, and post-sale stages with Python, Node.js and Svelte web interfaces. Integration of the sales process with CRM tools and communication applications.

- Backend implementation for managing data and message distribution between the Whatsapp Business API, CRM, and other management tools
- Automated client assistance processes, and sales workflow.
- Implemented Svelte, Node.js, Python, MongoDB, and Docker for process automation and CRM integration solution.
- Integrated with third-party solutions for improved sales and CRM operations.

Ipea Projects

#ipea-projetos

Title: Ipea Proiects (Ipea Projetos)

Skills: [#csharp](#) [#dotnet](#) [#sqlserver](#)

Summary: IPEA's Internal institutional system developed with .NET C# and Sql Server, for the management of all organizational projects and initiatives. It streamlines the coordination, monitoring, and administration of various projects, ensuring efficient management and tracking of institutional efforts.

- Developed with .NET C# and Microsoft SQL Server.
- Implemented as IPEA's main project management system.
- Organizational coordination tool.
- Institutional initiative tracker.

Ipea Data Extractor

#ipea-extrator

Title: Ipea Extractor (Ipea Extrator de Dados)

Skills: [#sql](#) [#r](#) [#sas](#) [#postgresql](#)

Summary: Web platform designed for querying, aggregating, and collecting a diverse array of data. Implemented with the Suite Pentaho, Mondrian, and Saiku, it provides access to public databases, research content, indicators, and historical data series.

- App for public data querying using Suite Pentaho, Mondrian, Saiku, and PostgreSQL.
- Web application offers flexibility in aggregating and cross-combining data to suit specific analysis needs.
- Data query and aggregation platform
- Custom data table builder.
- Business intelligence (BI) tool.
- Enabled creation of custom data tables for public, researchers, and policymakers.
- Aimed to enhance monitoring of social, demographic, and economic data.

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

Ipea Publishes

#ipea-publica

Title: Ipea Publishes (Ipea Publica)

Skills: [#sql](#) [#postgresql](#) [#html](#) [#css](#) [#javascript](#)

Summary: IPEA's internal institutional web application built with Java, specifically designed to streamline and standardize the review process for institutional publications at Ipea. Automation tool, significantly enhancing the efficiency and consistency of how Ipea's publications are managed and reviewed.

- Workflow automation application
- Developed using Java, JSF, Spring, and PostgreSQL.
- Automated and standardized the review process of IPEA's publications.

IpeaGEO

#ipeageo

Title: IpeaGEO: Spatial Data Analysis

Skills: [#csharp](#) [#dotnet](#) [#open-source](#)

Summary: Windows desktop application developed in .NET C# for advanced spatial data analysis.

- .NET C# GIS application for advanced spatial data analysis.
- Spatial data analysis software
- Specialized in manipulation and georeferencing of spatial data, with GIS capabilities.
- Enables users to visualize and generate maps.
- Facilitated GIS capabilities for academic research and student projects.

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

Financial Analytics Lab

#financial-analytics-lab

Title: Financial Analytics Laboratory for Teaching and Research

Skills: [#sas](#) [#r](#) [#quantitative](#) [#qualitative](#) [#time-series-analvisis](#) [#asset-allocation](#) [#regression](#) [#risk-assessment](#) [#financial-modeling](#) [#bloomberg](#) [#finance](#) [#econometrics](#) [#forecasting](#) [#regression-analysis](#) [#portfolio-management](#) [#risk-management](#) [#optimization-methods](#)

Summary: Lab setup for teaching and research, utilizing SAS, R, and Bloomberg tools to enhance students' analytical and practical skills in finance, and quantitative and optimization methods.

- 'Develop and utilize SAS, R, and Bloomberg tools for teaching and research, enhancing students' analytical and practical skills.
- Focus on optimization methods, forecasting, and regression analysis, guiding students through complex financial concepts.
- Engage in asset, portfolio, and risk management studies, providing students with practical, industry-relevant knowledge.
- Implement real-time data analysis and visualization tools to aid in financial decision-making.
- Design lab exercises and projects that simulate real-world financial scenarios, enhancing learning outcomes.
- Integrate advanced econometric and statistical methods into the curriculum.

Future Rentability

#future-rentability

Title: Automated Future Rentability Estimation for ALM models.

Skills: [#sas](#) [#finance](#) [#financial-modeling](#) [#econometrics](#) [#time-series-analysis](#) [#regression](#) [#portfolio](#) [#risk-assessment](#) [#quantitative](#) [#asset-allocation](#) [#optimization-methods](#)

Summary: System for automated future rentability estimation in Asset-Liability Management (ALM) models developed with SAS.

- Financial modeling tool.
- Analytics system.
- Financial forecasting system.
- Designed and developed an automated system for estimating future rentability in ALM models using SAS.
- Improved and automated financial strategy and decision-making processes in pension fund management.

Actuarial Flow

#actuarial-flow

Title: Automated Deterministic and Stochastic Actuarial Flow for ALM models

Skills: [#sas](#) [#finance](#) [#financial-modeling](#) [#econometrics](#) [#time-series-analysis](#) [#regression](#) [#portfolio](#) [#risk-assessment](#) [#quantitative](#) [#asset-allocation](#) [#optimization-methods](#)

Summary: System for automating both deterministic and stochastic actuarial flows in Asset-Liability Management (ALM) models built with SAS.

- Financial modeling tool.
- Analytics system.
- Actuarial analysis tool.
- Developed an actuarial flow automated system for ALM models, using SAS.
- Automated strategic asset allocation and portfolio decision-making for Brazilian pension funds.
- Improved the efficiency and accuracy of actuarial calculations in financial planning.

ALM

#alm

Title: Automated Asset-Liability Management Model for Pension Funds

Skills: [#sas](#) [#csharp](#) [#dotnet](#) [#sqlserver](#) [#finance](#) [#financial-modeling](#) [#econometrics](#) [#time-series-analysis](#) [#regression](#) [#portfolio](#) [#risk-assessment](#) [#quantitative](#) [#asset-allocation](#) [#optimization-methods](#)

Summary: System for the automated management of asset and liability in pension funds, utilizing an ALM model to optimize asset allocations, built with SAS, .NET C#, and Sql Server

- Financial modeling tool.
- Analytics system.
- Asset allocation tool.
- Automated ALM system for pension funds, utilizing SAS, and .NET C# for model development.
- Optimized asset allocation and liability management strategies for major pension funds in Brazil.
- Enhanced financial stability and asset management for pension funds.

Data Analysis Reports

#data-analysis-reports

Title: Economic Research Data Analysis and Reporting

Skills: [#sas](#) [#r](#) [#python](#)

Summary: Creation of databases, studies, and reports for economic research, with SAS, R and Python.

- Data analysis and visualization.
- Script-based data collection and processing tool.
- Generation of reports, data sets, and charts to support research and studies
- Development of scripts for data extraction and processing.
- Statistical and spatial analyses to support economic research efforts.
- Created databases and reports for economic research at IPEA using SAS, R, and Python.
- Supported policy makers and academic researchers with enhanced data analysis.

Roles

Software Engineer

#software-engineer

- Develop and test software applications.
- Systems programming and backend development.
- Frontend and web applications development.
- Full stack systems development.
- Implement Test-Driven Development (TDD) practices.
- Develop and maintain technical documentation.
- Ensure code quality and implement best practices.
- Collaborate with cross-functional teams to design and implement new features.
- Maintain and update existing codebases and applications.
- Create solutions meeting both user and business requirements.
- Conduct code reviews, pair programming, and provide constructive feedback.
- Troubleshoot and resolve software issues and bugs.
- Participate in the full software development lifecycle, from planning to deployment.
- Utilize version control systems to manage code changes.
- Stay current with emerging technologies and industry trends.

DevOps Engineer

#devops-engineer

- Implement and manage CI/CD pipelines.
- Automate and streamline development and release processes.
- Monitor system performance and ensure high availability.
- Collaborate with development and operations teams to improve deployment processes.

Distributed Systems Architect

#distributed-systems-architect

- Design distributed and scalable system architectures.
- Evaluate and select appropriate technologies for distributed systems.
- Ensure system reliability, scalability, and performance.
- Collaborate with cross-functional teams to define system requirements.
- Implement best practices for system security and data integrity.
- Optimize system components for high availability and fault tolerance.
- Develop and maintain technical documentation for system designs.
- Conduct performance testing and capacity planning.
- Troubleshoot and resolve complex system issues.
- Promote and implement microservices architecture.
- Stay current with emerging technologies and industry trends in distributed systems.
- Ensure compliance with industry standards and regulations.

Programming Task Designer and Evaluator (AI/LLM)

#programming-task-designer-evaluator-ai

- Create diverse programming prompts.
- Design problems involving data structures and algorithms.
- Develop system architecture and implementation tasks.
- Craft real-world project scenarios, such as web APIs.
- Generate system program challenges.
- Formulate function implementation exercises.
- Ensure prompts cover various programming concepts.
- Collaborate with developers for task validation.
- Evaluate, debug, test, and report all issues presented in the code generated by the AI, as well as suggest improvements and optimizations.

Prompt Engineer

#prompt-engineer

- Design and optimize prompts for AI models.
- Test and evaluate AI model responses.
- Analyze and refine prompt structures.
- Collaborate with AI developers to improve model performance.
- Document prompt engineering best practices.
- Conduct experiments to enhance prompt efficiency.
- Ensure prompt relevance and contextual accuracy.
- Develop strategies for prompt-based task automation.

Co-founder

#co-founder

- Shape and communicate the company's vision, mission, and culture.
- Guide strategic planning and decision-making to drive growth and development.

CTO (Chief Technology Officer)

#cto

- Direct overall technology strategy, aligning it with business goals.
- Manage the company's R&D initiatives and technological infrastructure.

Tech Lead

#tech-lead

- Lead and mentor a team of developers.
- Oversee the design and implementation of software projects.
- Ensure adherence to coding standards and best practices.
- Troubleshoot and resolve complex technical issues.
- Implement and promote Test-Driven Development (TDD) practices.
- Manage project timelines and ensure timely delivery of milestones.
- Stay current with emerging technologies and industry trends.
- Coordinate with stakeholders to align technical solutions with business goals.
- Foster a collaborative and innovative team environment.
- Evaluate team performance and provide guidance for professional development.
- Ensure scalability, security, and performance of software solutions.

Project Manager

#project-manager

- Oversaw project lifecycles from inception to completion.
- Defined project scopes, set objectives, and managed resources.
- Coordinated and led cross-functional project teams.

Systems Administrator

#sysadmin

- Manage server configurations and system security.
- Handle service deployment and software maintenance.
- Administer security protocols and automate routine tasks.
- Monitor system performance and troubleshoot issues.
- Implement Infrastructure as Code (IaC) practices for consistent and automated infrastructure management.
- Set up monitoring and alerting systems to proactively address potential issues.
- Automate routine administrative tasks using scripts and tools.
- Ensure compliance with security measures and best practices.

Data Engineer / Analyst

#data-engineer-analyst

- Databases administration.
- Data inspection, cleaning, and modeling.
- Data set management and statistical analysis.
- Researches, studies and statistical analysis.
- Data collection production.
- Developed ETL scripts and applied statistical methods for data analysis.

Systems Analyst

#systems-analyst

- Analyze business needs and document technical requirements.
- Design and evaluate technology solutions.
- Collaborate with stakeholders to ensure alignment of solutions with business goals.
- Conduct feasibility studies and cost-benefit analyses for proposed solutions.

Financial Technology Consultant

#financial-technology-consultant

- Analyze and develop financial models.
- Develop projects, systems, and automation tools to enhance asset allocation and portfolio management.
- Develop solutions for major banks, financial institutions, and pension funds.
- Conduct qualitative and quantitative research, applying econometrics and optimization methods to generate financial analyses.
- Design and implement predictive models for asset performance using quantitative methods.

Technology Educator

#technology-educator

- Teach a range of technology subjects.
- Share project-specific knowledge with technical staff.

University Professor

#professor

- Taught academic courses and conducted research in the areas of financial modeling, econometrics, and corporate governance.
- Taught courses in 'MMQD - Quantitative Methods and Operations Research', 'Finances 1', and 'Financial Calculus'.

Academic Researcher

#researcher

- Engaged in scholarly research and academic contributions.

Administrative Manager

#manager-admin

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

Skills

<div>Open-Source Software Project (OSS)</div> <div>4 years</div> <div>#open-source</div>	<div>Ansible</div> <div>1 year</div> <div>#ansible</div>	<div>Terraform</div> <div>1 year</div> <div>#terraform</div>	<div>Rust</div> <div>9 years</div> <div>#rust</div>
<div>Smart Contracts Development (Web3 Dapps)</div> <div></div> <div></div>	<div>Python</div> <div>11 years</div> <div></div>	<div>SQL</div> <div>9 years</div> <div></div>	<div>Data and Model Version Control</div> <div></div> <div></div>

1 year #smart-contracts	#python	#sql	6 years #dvc
HTML 11 years #html	CSS 11 years #css	Linux-based OS's/Distros, Servers, and VPS's 11 years #linux	Git 11 years #git
Github 11 years #github	Github Actions 4 years #github-actions	Gitlab 11 years #gitlab	Gitlab CI 1 year #gitlab-ci
APIs / Web APIs 11 years #apis	Javascript 11 years #javascript	Typescript 6 years #typescript	Node.js 11 years #nodejs
Amazon AWS 4 years #aws	Google Cloud Platform (GCP) 4 years #gcp	Microsoft Azure 4 years #azure	Linode 9 years #linode
Digital Ocean 4 years #digital-ocean	Hostinger 1 year #hostinger	Wasabi Object Storage 4 years #wasabi	R 7 years #r
SAS 7 years #sas	Shell Scripting 6 years #shell-scripting	Docker 6 years #docker	Svelte/Sveltekit 6 years #svelte
Vagrant 6 years #vagrant	Python Flask 11 years #python-flask	Mongodb 11 years #mongodb	Continuous Integration / Continuous Delivery (CI/CD) pipelines 6 years #ci-cd
Algorithms and Data Structures (DSA) 4 years #dsa	MySQL/ MariaDB 1 year #mysql	Redis 1 year #redis	SQLite 9 years #sqlite
PostgreSQL 9 years #postgresql	React.js 8 years #react	Firebase (Google) 4 years #firebase	Lua 4 years #lua
Wordpress 1 year #wordpress	Joomla 1 year #joomla	PHP 1 year #php	oData 1 year #odata
PostGIS 1 year #postgis	.NET Framework 1 year #dotnet	C# 1 year #csharp	Risk assessment 13 years #risk-assessment
Fundamental and technical analysis 18 years #fundamental-technical-analysis	Portfolio management 14 years #portfolio	Optimization Methods 6 years #optimization-methods	Asset allocation 6 years #asset-allocation

Bloomberg Terminal 13 years #bloomberg	Regression analysis 13 years #regression	Time-series analysis 13 years #time-series-analysis	Econometrics 13 years #econometrics
Forecasting Techniques 13 years #forecasting	Quantitative Research 6 years #quantitative	Qualitative Research 13 years #qualitative	Microsoft SQL Server 13 years #sqlserver
Riot.js 8 years #riotjs	Test Driven Development (TDD) 3 years #tdd	System Architecture 13 years #system-architecture	IpeaGEO 13 years #ipeageo
ArcGIS Desktop 13 years #arcgis-desktop	ESRI Geoportal Server 9 years #arcgis-geoportal	ArcGIS Collector 9 years #arcgis-collector	ArcGIS StoryMaps 9 years #arcgis-storymaps
ArcGIS Dashboards 9 years #arcgis-dashboards	ArcGIS App Builder 9 years #arcgis-app-builder	Excellent written and verbal communication 22 years #communication	Problem solving, creative and analytical approach to challenges 22 years #problem-solving
Efficient in managing multiple tasks 22 years #time-management	Proven ability to work effectively in team environments 22 years #collaboration	Financial modeling 11 years #financial-modeling	Finance 11 years #finance
Agile methodologies 11 years #agile			

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.

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 / Lectures

- Speaker at the VII Regional Symposium on Geoprocessing and Remote Sensing (GEONORDESTE):** 'Geotechnologies as development strategies for the semi-arid: the Regional Development Observatory': undefined
- Speaker at LAUC 2014 - Esti Latin America User Conference:** 'Regional Development Observatory (ODR)': undefined
- SAS Enterprise Guide Training Program:** Conducted training on SAS Enterprise Guide.
- 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

Personal

#personal-projects

Company: Personal Initiatives and Projects

Location: Brasília, DF, Brazil

Links: [My GitHub](#) .

Scale AI

#scaleai

Company: Scale AI

Location: San Francisco, CA, US

Links: [Scale AI](#) .

Seu Visto Certo

#vistocerto

Company: Seu Visto Certo

Location: Willow Park, TX, US

Links: [Seu Visto Certo](#) .

cwnt.io

#cwnt

Company: cwnt.io (Crown and Trunk Technologies)

Location: Brasília, DF, Brazil

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

CADE

#cade

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

Location: Brasília, DF, Brazil

Links: [CADE](#) .

IPEA

#ipea

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

Location: Brasília, DF, Brazil

Links: [IPEA](#) .

IAED

#iaed

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

Location: Brasília, DF, Brazil

Links: [IAED LinkedIn](#) .

CERME

#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

#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

#unb

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

Location: Brasília, DF, Brazil

Links: [UnB](#) .