Brayan Bernardo

SOFTWARE ENGINEER

I'm a curious software engineer with a background in **Machine Learning Research**, **Full Stack Web Development**, and **Quality Assurance**. My career has been a diverse adventure, contributing to impactful projects in the tech industry, academia, and social movements.

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EXPERIENCE

H.IAAC, Campinas — Machine Learning Researcher

APR 2023 - PRESENT

My research focuses on Machine Learning and Generative AI, specifically exploring the synthesis of realistic and expressive virtual avatars driven by speech and text inputs. I utilize advanced technologies and neural network architectures, including Python, PyTorch, Docker, Generative Adversarial Networks (GANs), Variational Autoencoders (VAEs), and Large Language Models (LLMs). See brbernardo90.github.io/bpsdth. Currently developing a Retrieval-Augmented Generation (RAG) system to retrieve scientific papers to provide more context-aware insights and responses (FAISS, OpenAI API).

Caiena, Campinas — Full Stack Developer

JUN 2017 - APR 2023

I specialized in implementing backend applications using Ruby on Rails, RESTful API patterns, and PostgreSQL, and in creating dynamic user interfaces with Vue.js and Vuex. Both backend and frontend developments adhere to Test-Driven Development (TDD) practices, with system tests developed using Cucumber and Capybara (BDD). Additionally, I conducted weekly training sessions for end-users, actively gathering their feedback to improve the application's functionality and overall user experience continuously. SCRUM, JIRA and AWS environment (IAM, VPC, EC2, ALB, RDS, Lambda, SQS, S3 and CL).

Diebold Nixdorf, Indaiatuba — Quality Assurance Engineer

MAY 2016 - JUN 2017

Planning and development of automated tests for web and mobile platforms (Android and iOS) using BDD methodology with tools such as Appium, Ruby (Capybara), and Cucumber. For desktop software testing, with BDD methodology using Python, Selenium, and Behave. Tests include AWS SQS and Lambda. Projects with Scrum methodology supported by JIRA.

Sofist, Campinas — Software Test Engineer

NOV 2014 - MAR 2016

My responsibilities included automating test cases with Java, Cucumber, and using databases like Cassandra and SQL Server. I handled tests across unit, integration, and system levels, applying various testing techniques such as white-box, black-box, and regression testing. Additionally, I conducted training workshops on unit testing for developers, helping improve testing practices within the team.

EDUCATION

University of Campinas (UNICAMP)
Master of Science in Computer Engineering, Specialization in Artificial Intelligence
MAR 2022 - MAY 2024, CAMPINAS, SP

Federal University of São Carlos (UFSCAR)
Bachelor of Computer Science
JAN 2009 - DEZ 2014, SÃO CARLOS, SP

SKILLS

Machine Learning
Generative IA, PyTorch, RAG, FAISS, LLM/GPT, GAN, VAE and Docker.

Full Stack
Web Development, AWS, Ruby on Rails (Ruby), Rspec, Pundit, Vue.js (Javascript), HTML, CSS, Mocha, Chai, TDD and PostgreSQL.

Quality Assurance
Test automation, Manual test, Cucumber, BDD, Capybara (Ruby), Selenium, Appium, Behave (Python), and Java.

LANGUAGES

Portuguese (Native)
English (Advanced)
Spanish (Intermediate)

CERTIFICATIONS

Microsoft Azure AI Fundamentals - 2024
Certified Tester Foundation Level (CTFL) by BSTQB - 2015