



# Bruno Tachinardi

TECHNOLOGY & INNOVATION LEAD

## Details

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## Links

[Linkedin](#)  
[Fofuuu Product Showcase](#)  
[Fofuuu + Samsung Campaign](#)

## Languages

Portuguese  
English  
Spanish

## Skills

AI Agents with Langchain,  
Pinecone, Custom Tools &  
Connectors (Typescript)  
ML with Tensorflow & Keras  
(Python)  
App Frontend with Unity3d  
for Android, iOS, Windows and  
MacOS (C#)  
Backend with .NET Core, Entity  
Framework & SQL (C#)  
Web Frontend with Vue / React  
(Typescript)

## Profile

Tech leader with a focus on digital transformation. Spearheaded AI-driven solutions at Fofuuu, enhancing clinical and operational outcomes. Passionate about using technology for societal betterment.

## Employment History

### Founder, CEO & CTO, Fofuuu, São Paulo

FEBRUARY 2019 – PRESENT

**Overview:** In 2019, I embraced the dual role of CEO and CTO at Fofuuu, steering the company through a critical pivot towards B2B and autism therapies and broader digital health solutions focused on professionals.

#### Key Achievements:

- **Fofuuu Edu Development:** Launched Fofuuu Edu with an initial offering of over 500 therapy activities, which has since expanded to more than 2,500, enriching our autism and special conditions therapy platform.
- **Automated Activity Metrics System:** Developed an innovative automated system for activity metrics collection in Fofuuu Edu, adding eight new metrics previously unobservable without digital assistance.
- **Content Production and Standardization:** To manage the extensive expansion to over 2,500 activities with a lean team, we implemented advanced internal tools and methodologies. This approach streamlined content organization, standardized therapy goals and mechanics, and accelerated production while ensuring high-quality therapeutic activities.
- **Fofuuu for Clinics Development:** Created a B2B solution for speech therapy clinics, enhancing therapy session efficiency through comprehensive data management, AI-driven therapy plan customization, and progress tracking.
- **Strategic Leadership:** Guided Fofuuu through fundraising (securing R\$ 1.5 M from Bossa Nova, Samsung, and Finep), team expansion, and product diversification. Fostered a culture of innovation and resilience, especially during challenging financial periods.
- **Clinical Study Leadership:** Led a pivotal clinical study with Unimed, collaborating with lead therapists to structure the study and develop new efficiency metrics. The study revealed an average skill acquisition speed increase of 17%, with peaks at 31%.
- **AI and Compliance Initiatives:** Implemented LGPD and HIPAA compliance in our Fofuuu for Clinics product. Introduced AI-driven tools for real-time adaptation in therapy activities, and began exploring LLM integrations for enhanced insights, customer support, and activity development.
- **Innovative Tech Integration:** Embraced cutting-edge technology, including the integration of natural language pipelines using OpenAI and open-source models with LangChain. This initiative aims to revolutionize performance report insights, customer support, and custom activity development.

### Product Innovation and Gamification Consultant, Nubank, São Paulo

FEBRUARY 2022 – JUNE 2022

#### Responsibilities and Achievements:

Backend with Node, Express,  
Mongoose and MongoDB  
(Typescript)

Experiments with PoC, MVP, A/B  
Testing, Concierge

Innovation Strategic Planning &  
Leadership

Teamwork, Problem Solving &  
Work Under Pressure

Data Security & Analysis

HIPPA & LGPD Compliance

Unit & Integration Tests

Docker & Docker Compose

API Design & OpenAPI

Jupyter Notebook

Google Colab

Microsoft Azure

Google Cloud

AWS

Google Play Build & Deploy

App Store Build & Deploy

Git, Git LFS & Git Flow

Github Actions

Microsoft Office (Excel, Word,  
Power Point)

Google Drive (Sheets, Docs,  
Presentations)

Google Drive API

Google Chrome Extensions

VS Code Extensions

- **Project Analysis and Strategy Refinement:** Conducted a comprehensive analysis of the ongoing project, identifying key areas for improvement. Utilized my expertise in user experience and product development to refine and align the MVP with Nubank's strategic goals.
- **Collaborative Development and Alignment:** Worked closely with product designers and coordinated with various stakeholders to gain necessary approvals. Managed the integration of the MVP into Nubank's existing product ecosystem, ensuring a seamless user experience.
- **Prototyping and Validation:** Led the creation and testing of functional prototypes, incorporating real user feedback. This added a crucial validation step before the MVP's official launch.
- **Communication Strategy and Integration:** Assisted in designing effective communication strategies and integrating them within the existing app framework to ensure a cohesive user experience.
- **Technical Planning and Story Development:** Utilized my technical background to formulate clear and comprehensive development tasks and user stories, facilitating a smooth translation of business requirements into technical solutions.

**Impact:** My consulting role at Nubank was instrumental in navigating the Client Loyalty MVP towards a successful launch. By harmonizing user experience insights with strategic product development, I played a key role in delivering a product that not only met business objectives but also enriched the overall user experience.

## Lead AI Researcher and Developer, Fofuuu, São Paulo

OCTOBER 2017 – NOVEMBER 2018

**Overview:** Lead the research and developed the PhoneNet model, an ambitious endeavor to develop a deep learning model for real-time phoneme classification, aimed at enhancing our speech therapy tools.

### Key Contributions and Achievements:

- **Research and Development:** Initiated and led the research to develop a real-time voice-to-phoneme classification system. Adapted a ResNet model to work with Mel-log spectrograms features, fine-tuning hyper-parameters and layers to create an efficient, lightweight model.
- **Model Optimization:** Focused on optimizing the model for isolated phoneme classification, crucial for speech therapy techniques used in conditions like autism and Cleft Lip and Palate. This included unique sounds and syllables often used in therapeutic settings.
- **International Collaboration:** Partnered with a machine learning team from Singapore, leveraging their expertise in Speech-to-Text systems. Despite resource constraints, we successfully collaborated on a pro-bono basis, enriching our model with expert insights.
- **Proof-of-Concept and Data Collection:** Successfully developed a Proof-of-Concept, followed by launching the "Donate your Voice" campaign. Created an online platform for collecting, cleaning, and labeling phoneme speech samples, amassing 70k samples for initial training and fine-tuning of the model.

Adobe (Photoshop, Illustrator,  
After Effects, Premiere)

Linux (Ubuntu, Debian)

Powershell

Quality Assurance

UX Design

UX Research

Gamification

- **Publication:** Authored and published a paper titled "PhoneNet: A Neural Network with Deep Learning for Real-Time Phoneme Recognition in Digital Games" at the 26th Brazilian Congress of Speech Therapy. This publication detailed the development and efficacy of PhoneNet, highlighting its 91.54% accuracy in phoneme recognition and its innovative application in speech therapy.
- **Ongoing Data Collection:** Continued to expand our dataset within the product, reaching a total collection of 12 million samples, setting the stage for the development of an advanced version 2 of the model.

## Co-Founder and CTO, Fofuuu, São Paulo

JANUARY 2017 – JANUARY 2019

**Overview:** Stepping into the CTO role with secured funding, my focus shifted towards building and leading a robust product team, while also continuing to contribute significantly to the technical development of our platform.

### Key Responsibilities and Achievements:

- **Team Building and Partnership:** Spearheaded the hiring process for product development roles, including developers, designers, artists, and animators. Formed a strategic partnership with a game development studio, which provided additional development support and helped reduce initial costs.
- **Culture and Process Management:** Cultivated a strong team culture and implemented agile methodologies along with basic CI/CD and DevOps pipelines, enhancing efficiency and collaboration within the team.
- **Product Roadmap Coordination:** Oversaw the product roadmap, balancing customer feedback with business objectives. This led to the production of over 150 therapy games, multi-platform support, user and patient management system, subscription-based monetization, basic BI dashboards, and therapy management tools.
- **Technical Leadership and Development:** As Lead Developer, I was responsible for code reviews and app architecture. Continued to refine our signal processing input system, adapting it for a broader audience by incorporating advanced MEL spectrogram analysis with neural network-trained filters so it could be used with phoneme acquisition and generalization activities.
- **Stakeholders and Presentations:** Assisted the CEO in sales pitching and investor meetings, ensuring comprehensive coverage of all aspects of our technology and product.

## Co-Founder, CEO and Sole Developer, Fofuuu, São Paulo

MAY 2015 – DECEMBER 2016

**Overview:** In the foundational stage of Fofuuu, I identified the potential to adapt a product created at Betri Studio into a tool for speech therapy, focusing initially on Cleft Lip and Palate rehabilitation.

### Key Responsibilities and Achievements:

- **Product Repurposing and Innovation:** Leveraged an existing product from Betri, transforming it into a therapeutic tool. This adaptation was inspired by a speech therapist associate, guiding our focus on Cleft Lip and Palate.

- **Prototype Development:** Developed a prototype that utilized sound signal analysis to convert airflow into real-time game inputs, enabling patients to engage in airflow training activities through interactive gameplay.
- **Research and MVP Creation:** Conducted extensive research among speech therapy professionals to understand their daily challenges and needs. This research led to the creation of the first MVP, which included functionalities addressing these pain points.
- **Clinical Testing and Validation:** Initiated clinical testing of the MVP with early adopters, gathering valuable feedback and data to refine the product further.
- **Investor Pitching and Funding:** Successfully pitched the business concept to investors, securing our first round of funding. This milestone allowed us to expand the team and onboard a third founder who took over the CEO role, enabling me to concentrate on technology development and innovation.

## Founder, Business and Technology Lead, Betri Studio, São Paulo

FEBRUARY 2013 – FEBRUARY 2016

**Overview:** In my role as Founder, CEO, and CTO of Betri Studio, I guided the company in establishing itself as a niche innovator in digital solutions, focusing on technology, user experience, and gamification for corporate clients. My responsibilities spanned strategic planning, business development, product design, and technology leadership.

### Innovative Project Development:

1. Led the creation of custom digital solutions aimed at enhancing employee engagement and internal communication, integrating gamification strategies.
2. Managed multidisciplinary teams and their alignment with multiple stakeholders, ensuring cohesive collaboration across UX design, software development, and project execution.

### Major Projects:

1. **McDonald's Institute:** Developed an engaging digital experience with gamification elements to educate employees about the organization's history, values, mission and vision, boosting internal engagement and knowledge sharing.
2. **Wella:** Implemented a comprehensive HR management system with gamified features, enhancing adoption and engagement within the commercial team.
3. **MAC Construction:** Devised a rewards and experiences system linked to the sales team's performance, incorporating elements like social interaction, avatars, and prize systems to encourage healthy competition and collaboration.
4. **Zambon Pharmaceuticals:** Created a unique, interactive system for the Fluimucil educational campaign, combining entertainment with product knowledge, thereby increasing brand engagement.

## Course Engine Developer, MCS Java, São Paulo

MAY 2012 – MARCH 2013

### Role and Involvement:

- **Development Role:** Contributed as a junior developer to the creation of an Editor and Runtime for MCS Java's online courses. This project was aimed at transitioning to a B2C market, requiring a focus on robust and optimized solutions.

- **Technical Execution:** Involved in developing a Flash-based course creation engine, with an emphasis on performance and user accessibility.
- **LMS and SCORM Integration:** Worked on integrating the runtime with Learning Management Systems (LMS) in compliance with SCORM standards, including functionalities like progress bookmarking and learner path management.
- **Autonomous Decision-Making:** Despite being in a junior role, I was entrusted with a degree of autonomy in certain aspects of the engine's development, allowing me to contribute to its overall architecture and direction.

**Learning Experience:** This early career role at MCS Java was a significant learning opportunity, where I honed my technical skills and gained valuable insights into e-learning platform development. It laid the foundation for my understanding of scalable and user-friendly e-learning solutions.

## Game and Course Developer, E-Guru, São Paulo

JANUARY 2012 – FEBRUARY 2013

**Overview:** In my role as a Junior Game and Course Developer at E-Guru, a São Paulo-based company specializing in interactive Flash applications for e-learning, I was part of a dynamic team that created educational content for corporate clients' HR departments.

### Role and Contributions:

- **Development and Innovation:** Worked on developing Flash applications for e-learning and courses, primarily targeting HR departments, employee training, and continuous education.
- **Technology Upgrade Initiative:** Advocated for and led the transition from ActionScript 2 to ActionScript 3. This shift aimed to overcome limitations such as code embedded in Flash objects, which hindered versioning and code reuse.
- **In-House Engine:** Assigned the critical task of developing an in-house pseudo-engine and internal tools. This facilitated designers in custom course creation, significantly improving efficiency and adaptability in response to market demands.
- **Engine Editor Development:** Created an intuitive course editor that saved projects in a JSON format, integrating assets and business logic. This system streamlined project distribution and consumption by the engine's runtime, allowing for easy addition of new features and shareable code across projects.
- **Leadership in Technical Innovation:** Assigned to work on the engine's development full-time, my efforts culminated in a more efficient, version-controlled, and competitive product offering.

**Learning and Growth:** This experience was instrumental in transitioning from academic to professional software development. I learned the complexities of bringing products to production, balancing technological upgrades with practical concerns like backward compatibility and client environment constraints.

## Education

### Bachelor of Game Design, Anhembi Morumbi, São Paulo

JANUARY 2008 – DECEMBER 2011

### Key Achievements:

- Developed a top-scoring final project that was not only conceptually strong but also technically robust, resulting in a ready-to-launch gamified product.
- Authored and published "Definição e Estrutura do Ambiente Competitivo de um Jogo: um Estudo", a paper reflecting my research and technical expertise in game design.

#### Technical Focus:

- Dedicated significant attention to mastering technical skills, including advanced programming, rendering algorithms, and network development within the context of game design.
- Explored theoretical concepts about game theory, gamification and game dynamics, their connection to Behavioral Design, which ignited my passion about using these tools to improve people's lives through healthy habit creation and adhesion.

## Awards & Honors

### Best Educational Game Award (BIG Festival / BNDES), Brazil

JULY 2015

**Awarded by:** BIG Festival (Best International Games Festival) and BNDES (Brazilian Development Bank)

**Details:** This award recognized our innovative digital health game, designed to aid therapy for children with Cleft Lip and Palate. The prize marked our first significant funding. This support enabled us to enhance Fofuuu for various conditions, demonstrating our commitment to impactful healthcare solutions.

**Investment:** R\$ 20,000

#### Learn more:

<https://gizmodo.uol.com.br/com-premio-no-big-festival-fofuu-mostra-que-games-podem-ser-mu>

### Best Startup Award & Honorable Mention for Most Dedicated Startup (BioStartup Lab), Belo Horizonte

APRIL 2016

**Awarded by:** BioStartup Lab, executed by Biominas Brasil and Sebrae Minas

**Details:** Awarded as the best startup in BioStartup Lab's first round, this recognition highlighted our innovative digital health solutions. Accompanied by an honorable mention for dedication, peer-voted for commitment and innovation, it reflects our respected standing among fellow entrepreneurs. This journey through BioStartup Lab showcased our resilience and adaptability, reinforcing our ability to create impactful health tech solutions.

**Investment:** R\$ 200,000 worth of services from Biominas and Sebrae.

#### Learn more:

<https://www.linkedin.com/pulse/hist%C3%B3ria-por-tr%C3%A1s-do-biostartup-lab-rafael-silva/>

### Health Entrepreneurship Award (Sírío-Libanês Hospital / NTT Data), Brazil

NOVEMBER 2016

**Awarded by:** Sírío-Libanês Institute of Teaching and Research and Everis Brazil, through its Foundation.

**Details:** Recognized for advancing our project into a full-fledged platform for speech therapy, incorporating advanced voice recognition technology and a hardware prototype for airflow input. This award marks a pivotal development in our journey, as we moved beyond conceptual designs to tangible, innovative solutions in healthcare technology.

**Prize:** R\$ 50,000

**Learn more:**

<https://www.pptasaude.com.br/noticias/3501/startup-fofuuu-e-vencedora-do-premio-empreend>

## **Outstanding Health and Wellness Startup (Sabin Institute / Artemisia Lab), Brazil**

SEPTEMBER 2017

**Awarded by:** Artemisia and Sabin Institute

**Details:** Recognized as an Outstanding Startup in the Artemisia Lab Health and Wellness acceleration program. This program, a collaboration between Artemisia and Instituto Sabin, sought to support social impact businesses focused on health and well-being. Fofuuu was selected for its potential to positively impact thousands of lives in Brazil, particularly through solutions that could enhance and complement the public offerings of the Unified Health System (SUS). Among 171 mapped companies, Fofuuu stood out for its innovative approach and commitment to social impact in health.

**Learn more:**

[https://pesquisaparinovacao.fapesp.br/instituto\\_sabin\\_e\\_artemisia\\_selecionam\\_17\\_startups\\_de](https://pesquisaparinovacao.fapesp.br/instituto_sabin_e_artemisia_selecionam_17_startups_de)

## **Award for Best Children's Game (BIG Festival), Global**

JUNE 2018

**Awarded by:** BIG Festival

**Details:** Fofuuu was honored with the Best Children's Game Award at the 2018 BIG Festival. The unique jury, composed of children from GRAAC (Support Group for Adolescents and Children with Cancer), selected Fofuuu as the most enjoyable game from a diverse international lineup. This award is particularly notable because Fofuuu was up against games primarily designed for entertainment, without a focus on education or healthcare. Our win in this category demonstrates our ability to seamlessly integrate fun gaming experiences with therapeutic benefits.

**Learn More:**

<https://www.terra.com.br/noticias/tecnologia/canaltech/no-heroes-here-e-frostopunk-levam-primeiro>

## **Creative Startups Acceleration & Highlight Campaign (Samsung), Brazil**

MARCH 2019

**Awarded by:** Samsung

**Details:** Selected for Samsung's esteemed startup program, this period signified Fofuuu's strategic pivot from a speech therapy-exclusive platform to a comprehensive platform encompassing speech therapy, occupational therapy, psycho-pedagogy, and behavioral psychology. This expansion, particularly focused on supporting children with autism, integrates AI for adaptive learning, marking a substantial advancement in our digital health solutions.

**Investment:** R\$ 200,000

**Learn more:**

<https://news.samsung.com/br/samsung-acelera-startup-que-estimula-a-fala-das-criancas-com-jogos>

**Campaign Recognition:** Fofuuu was featured in Samsung's marketing campaign, showcasing our innovative approach to inclusive technology for children with special needs.

**Learn more:** <https://youtu.be/LYUtFdxuQds>

## **Social Impact Games Award (Itamaraty / Games for Change), South America**

DECEMBER 2019

**Awarded by:** Games for Change and Itamaraty (Brazilian Ministry of Foreign Affairs)

**Details:** This accolade was presented at the 7th Festival Games for Change Latin America, recognizing our project's contribution to social change through gaming. The award acknowledged our game's role in inclusion and citizenship, and as a result, Fofuuu was selected to represent Brazil at international events in London, Berlin, Paris, and New York.

## **Covid-19 Rapid Innovation Cycle Project Award (City of São Paulo), São Paulo**

APRIL 2020

**Awarded by:** City of São Paulo's Ade Sampa, along with other partners

**Details:** Fofuuu was recognized for its swift adaptation of our health platform to support telemedicine during the COVID-19 pandemic. This award highlights our innovative response to urgent public health needs.

**Investment:** R\$ 100,000

**Learn more:**

<https://revistapegn.globo.com/Startups/noticia/2020/04/prefeitura-de-sp-anuncia-startups-que->

## **Santander X Tomorrow Challenge Award, Global**

JULY 2021

**Awarded by:** Santander

**Details:** Fofuuu was honored in the Santander X Tomorrow Challenge, a global competition seeking innovative solutions to challenges posed by COVID-19. Selected from over 2,200 proposals across 35 countries, Fofuuu was recognized in the "Re-Invent" category for our gamified and remote therapy activities for children with disabilities.

**Investment:** € 20,000.

**Learn more:**

<https://www.santanderx.com/en/blog/fofuuu-tricia-araujo-bruno-tachinardi>

## **Internships**

### **Course Developer, E-Guru, São Paulo**

OCTOBER 2010 – MAY 2011

**Role and Contributions:**

- **Primary Task:** Initially tasked with translating e-learning courses from Portuguese to Spanish, involving repetitive and time-consuming work.



- **Automation Initiative:** Recognizing the potential for process optimization, I dedicated personal time to develop a script to automate translation tasks. Utilized PowerShell scripts for file and folder management and created a Flash plugin for text replacement within Flash files.
- **Process Improvement:** Successfully streamlined the translation process, significantly reducing the time required for course localization. This system was later adopted by other team members, enhancing overall team efficiency.
- **Course Development:** Post-translation project, I was entrusted with straightforward development tasks within the company's main course development pipeline, marking my initial foray into practical software development.

**Learning and Growth:** This internship was a critical learning period where I not only honed my technical skills but also developed a keen eye for process improvement and automation. It laid the groundwork for my understanding of efficiency in software development workflows.