# Fábio Aguiar

# Computer Engineer

1995, August, 05



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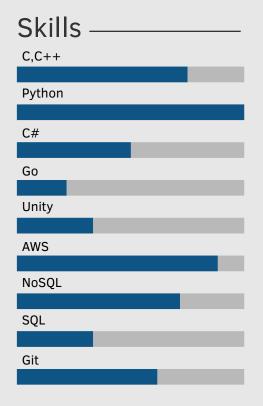
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# About me -

A highly motivated Computer Engineer with a passion for solving complex challenges through innovative solutions. I believe that progress emerges from tackling chaos, when capable of utilizing emergent properties in complex systems. My expertise lies in developing efficient, communicative processing modules that drive scalable and adaptive technologies.



# **Current Interests** -

Data Science
Data Analytics
Game Development
VR Development
Nanoservice Architectures
Gen AI apps

#### Education

2014-2020: Bachelor in Computer Engineering Polytechnic School of Engineering, University of São Paulo College degree

#### Qualification

- Proficiency with AWS backend development: Microservices, Messaging, REST, Cache, Database, Storage, Infrastructure as Code, CI/CD, Monitoring.
- Agentic AI development: LLM wrappers, fine-tuning, LLM chaining, context control, memory management, RAG indexing, self-learning feedback, tools integration.
- C, C++, as the basic imperative languages. C# as a supporter, when required.
- Python as the basic object-oriented language for modular programming, parallelism, prototyping, Artificial Intelligence and Data Science.
- Experience with Docker, container, integration and unit testing.
- Project management exclusively though Github for code, visual tools for business.
- Worked with OpenCV, Opengl, Shaders for image processing and matrix GPU calculations, image processing for real life interpretation with YOLO, Pytorch and Tensorflow.
- Used SQL, GML, VHDL and Assembly.

## Published Projects

2025: Babella-chan: A multilingual Vtuber that interacts with chat, voice, games.

2024: Secured entry into the CAN IT RUN DOOM database

2024: Forward to the Past: Participated in 2024 January PirateJam.2020: My own Game Engine: Arbitrary screen control from scratch.

2019: Thesis: Providing existential perspectives to virtual game characters.

2019: 3D modelling on GMS2: 3D processing on 2D camera from scratch.

## Experience

2022-2024: Software Development Analyst at BTG Pactual

Worked for 2 years at BTG Pactual. Development with AWS, project development for Banking Systems and Insurance. Efficient systems to create AWS Cloudformation and entire Microservices automatically.

2018-2022: Software Development Consultant

General software development. Worked as an artificial intelligence researcher, for image processing and creation of neural networks. Parallel processing, project management and database manipulation. Worked for the companies AtoS, Arbit, Scala.

2017: Research on Interactive Systems

Assistance in research through the development of VR environments and AR environmental analysis, for interactive systems on Unity.

2015-2017: ThundeRatz team of Robotics

Development of projects on robotics, while experiencing teamwork, improving technical skills for fast and incremental development.

2014-2016: Laboratory assistance

Assistance in research through the development of mathematical simulations, descriptions and interpretation of results, automation and parallelism.

# [Personal Projects and Interests]

2023-202X: Parametric game engine

Creating a game engine that builds a game during runtime. The engine loads files that can be easily manipulated and builds a complete RPG with monster you can capture, by loading images, audios and text data from the project folders.

2017-202X: CodeStory: A Self-Conscious Universe

Currently working on a game about virtual consciousness, applying concepts of game design, concept development, parallel development, GPU processing, shaders, game balance, realtime audio editting, communication protocols and modular processing.

2018-2020: Notpron

Solved a classic internet riddle. Learning and adaptation, 100 solvers worldwide.