

# Bryan Almeida Farias

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## SKILLS

SOFTWARE ENGINEERING	Python, C, NumPy, pandas, pytest, Linux Administration, Git/Github, GCP, Software Design Principles, Data Structures
BACKEND	Django, Django Rest Framework, Flask, FastAPI, Celery, Postgresql, Docker, Kubernetes
FRONTEND	React, HTML/CSS/JS, Tailwindcss, Bootstrap
DATA SCIENCE	Machine Learning, Deep Learning, MLOps, Data Visualization, Computer Vision, Statistics, Data Analysis
COMPUTATIONAL PHYSICS	Computational Methods, Physical Modeling and Simulations, High Performance Computing
MATH	Calculus, Linear Algebra, Differential Equations

## WORK EXPERIENCE

### GEPLANT TECHNOLOGIES | SOFTWARE ENGINEER

Piracicaba, SP | Feb 2022 – Apr 2024

- Led the technical transformation of the company's technical infrastructure, achieving an **8000% increase in overall system speed and enhanced system reliability**, enabling maintenance and acquisition of business clients and opportunities.
- Collaborated closely with business leaders, R&D, and operational teams to align technical enhancements and feature implementations with strategic goals.
- Contributions played a crucial role in large-scale geographical data analysis projects, including gathering and processing climate, soil and satellite data of the **entire 1.4 billion acres of the amazon forest, which would've been impossible without the optimizations made.**
- Also mentored interns by imparting both technical knowledge and lessons from experience, guiding them towards becoming **productive and independent members of the team in less than 2 months.**
- **Exceeded the requirements of a Junior Developer role**, completing complex tasks efficiently, leading to a promotion to the mid-senior level after less than two years.

### CLOUD SOLUTIONS FREELANCER

Remote | Apr 2023 – Ongoing

- Assisted clients from diverse industries in **deploying their ideas and applications** on the cloud.
- Developed and optimized Python backend servers, and resolved issues in existing applications, ensuring thorough documentation of all changes for future reference and learning.
- Fostered **strong client relationships**, resulting in multiple recurring clients due to high-quality service and effective communication.

## EDUCATION

### UNIVERSIDADE FEDERAL FLUMINENSE | BS COMPUTATIONAL PHYSICS

Volta Redonda, RJ | Aug 2014 - Dec 2019

Studied a range of topics, including physics, mathematics, and computer science. Computer related courses focused primarily on optimization algorithms, physical simulations, and how to apply them in high performance environments. Studies culminated in a final semester project related to computer modeling, which was eventually published by Elsevier.

# PROJECTS

## SYSTEM-WIDE ARCHITECTURE & SERVER OPTIMIZATION | PYTHON, DJANGO, DJANGO REST FRAMEWORK, FLASK, GOOGLE CLOUD PLATFORM, POSTGRESQL

- **Service Optimization Expertise:** Optimized six different interconnected services, fundamentally changing the processing and communication of data, with reports showing an increase of overall task completion speed by up to 8000%.
- **Distributed Computation and Custom Tool :** Built a distributed task-based environment with celery and kubernetes, created a custom python package tool for tracking celery task progress and metadata, to which then led to the creation of a React UI page for visualizing the progress and metadata in real time.
- **Strategic Business Impact:** Optimizations enabled the company to acquire and maintain the main forest production companies in Brazil as customers and allowed the undertaking of ambitious projects, such as the analysis of the entire Amazon rain forest, previously deemed impossible.

## CORE APPLICATION REVAMP | PYTHON, DJANGO, DJANGO REST FRAMEWORK, GOOGLE CLOUD PLATFORM, REACT, BOOTSTRAP

- **Complete migration from on-premise to cloud:** Led the shift of 8 interconnected services and database to Google Cloud, which enabled the company to arbitrarily scale on-demand.
- **Complete Automation Achievement:** Complete automation of previously manual processes, significantly reducing the workload of the operational team.
- **Custom Tool Creation:** Created a custom python package tool for tracking celery task progress and metadata, to which then led to the creation of a React UI page for visualizing the progress and metadata in real time.
- **Proper REST Implementation:** Developed a proper REST API using Django and Django REST Framework, offering fine-grained control over system operations and enhancing integration capabilities.
- **Robust Validation Framework Implementation:** Added over 150 validations for business logic and data input integrity.
- **UI Development Contribution:** Helped develop a new user interface with React and Bootstrap, modernizing the digital presence, and improving the operational team's experience.

## DISCORD CHATBOT USING GPT-3 WITH SCRAPED TRAINING DATA | PYTHON, PANDAS, NUMPY, TENSORFLOW, HUGGING FACE

- **Custom AI Development:** Developed a custom conversational AI model using data scraped from Discord servers, tailored for realistic multi-participant conversations.
- **Advanced Data Preparation:** Used Numpy, Pandas and Tensorflow Dataset for data scraping, followed by sophisticated filtering, tokenization, and formatting techniques to prepare data for conversational training.
- **Efficient AI Training:** Trained the model using Google Cloud TPUs and Hugging Face libraries, using a pre-trained conversational model.
- **Discord Bot Integration:** Integrated the AI model into a Discord bot, enabling dynamic and engaging interactions within group settings.
- **AI Expertise Advancement:** I advanced my personal expertise in deep learning technologies and practical AI application, culminating in a successful project that combined technical achievement with personal learning.

# PUBLICATIONS

## SCIENTIFIC ARTICLE PUBLICATION ON ELSEVIER

Created a computational simulation to investigate the Peter Principle and the efficiency of organizations. The conclusion was that, taking into account multidisciplinary skills and learning, the effects of the Peter principle were minimized, and that the capacity for learning is by far the most valuable attribute in employees for the longevity of a company.