

Matheus Bitarães de Novaes

Software Engineer | MSc in Computational Intelligence

ABOUT

Experience: +10 years | **Languages:** English (Fluent), Portuguese (Native)

I'm a deadline-oriented Systems Engineer with more than 10 years of experience working on global companies from various industries, including marketing, retail and automotive.

I hold a Masters in Engineering (Computational Intelligence). My research focused on Algorithmic Music Generation. My thesis explored using Genetic Algorithms and Generative Adversarial Networks (GANs) for creating melodies with specific harmonic functions. Additionally, I published an article on the use of data augmentation strategies to improve the quality of GAN-based musical melody generators.

Proficient in full stack development, but especially interested in back-end development and productization of machine learning models.

WORK EXPERIENCE

Maker.ai (formerly Draft.co)

Full Stack Software Engineer

June 2022 - March 2023

- Involved in the creation and launching of two new products: Maker.ai, a content creation suite using GPT and other AI models, and Attain, a sales copilot that can answer product questions and generate insights about leads.
- Worked as a full stack engineer on Draft - An on-demand content writing platform, maintaining it and developing new features
- Utilized various technologies and tools, like Javascript, Python, Node.js, Vue.js, MongoDB, PostgreSQL, OpenSearch, and AWS S3
- Collaborated with cross-functional teams, including product managers, designers, and engineers, to deliver high-quality products and features in a highly fast-changing environment

Americanas s.a.

Back-End Software Engineer

August 2021 - June 2022

- Worked in the Search Engine Team for one of the biggest retail companies in Brazil, dealing with a high SLA and millions of requests per minute.
- Worked on developing new features and with maintenance of the search engine
- Participated of the productization of an autocomplete feature that used query understanding techniques to enhance user experience
- Utilized various technologies and tools, like Java, Python, Solr, AWS Cloud, Google Cloud.

PERSONAL INFO

Brazilian, 30 years old
Belo Horizonte, MG, Brazil
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matheusbitaraesdenovaes@gmail.com

[Personal Website](#)

[LinkedIn](#)

[GitHub](#)

SKILLS

Programming Languages and Frameworks:

Java, Python, Javascript, Node.js, Vue.js, React.

Databases, queues, and streams:

PostgreSQL, MongoDB, Redis, Elasticsearch

Cloud and DevOps:

Azure, AWS, Git, Kubernetes, Docker

Agile:

Kanban, SCRUM

EDUCATION

UFMG

MSc - Computational Intelligence

2023 - Belo Horizonte, Brazil

UFMG

BEng Systems Engineering

2018 - Belo Horizonte, Brazil

QUT - Queensland University of Technology

BEng Systems Engineering (Sandwich graduation)

2015 - Brisbane, Australia

CEFET-MG

Technician in Mechatronics

Omnilogic

Systems Analyst (Squad Lead)

April 2019 – July 2021

- Developed features and maintained products offered by the company, such as a Search App (with proprietary back-end) for Vtex marketplace.
- FullStack developer, working with Java, Javascript, React, GraphQL, Elasticsearch, Docker, Kubernetes, Scala, SQL, MongoDB and Azure Cloud Systems
- Experience with CI/CD and code versioning tools.

FCA – Fiat Chrysler Automobiles

Global Innovation Analyst

May 2018 – February 2019

- Responsible for planning, developing and constructing prototypes of innovative products according to the company's global innovation plan.

Product Definition Analyst

August 2016 – May 2018

- Work in LATAM MOPAR's Product Definition team.
- Active participation in global projects between NAFTA, EMEA, APAC and LATAM regions regarding service systems and spare parts.

Enacom – Handcrafted Technologies

Engineer intern

Jan 2016 – July 2016

- Internship working with Matlab implementations in the field of game theory and optimization.

ARCAA – Australian Research Centre for Aerospace Automation

Work Experience/Scientific Research

Jun 2015 – Nov 2015

- Thermal cameras calibration for health analysis on crops.
- Research and development of algorithms for recognition of wildlife in thermal imaging.

FCA – Fiat Chrysler Automobiles

Product Definition Analyst

October 2012 – December 2014

- Work in LATAM MOPAR's Product Definition team.

Metalfisa

Technician Intern

May 2011 – April 2012

- Mechatronics intern

Engineering

2011 – Belo Horizonte, Brazil

COURSES AND CERTIFICATIONS

Matza Education – Google Cloud Platform Fundamentals: Big Data & Machine Learning (2021)

Udemy – Machine Learning A-Z™: Hands-On Python & R In Data Science (2018)

Udemy – Statistics for Business Analytics and Data Science A-Z™ (2018)

PUBLICATIONS

Data Augmentation Strategies for Music Composition using Generative Adversarial Networks
[Congresso Brasileiro de Automática](#) – 2022

Energy Conversion Factor for Gasoline Engines in Real-World Driving Emission Cycle
Automotive Innovation – [Springer](#) – 2020

Comparação entre garantias teóricas de solução para interações cooperativas e não-cooperativas em jogos
[XXIII SIMPEP](#) – 2016