

# Júlio César Batista

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## Education

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**Universidade Federal do Paraná (UFPR)** **Curitiba, Paraná, Brazil**

*M. Sc. in Informatics (Computer Science)* 2016–2018

Full-time scholarship researcher at the IMAGO-UFPR Research Group (<http://www.imago.ufpr.br/>). Research topic: computer vision and deep learning for facial expression analysis.

**Papers:** [Batista et al., 2016], [Batista et al., 2017], [Zavan et al., 2017] and [Silva et al., 2019].

**Universidade Regional de Blumenau (FURB)** **Blumenau, Santa Catarina, Brazil**

*B. Sc. in Computer Science* 2011–2015

Capstone project: machine learning and computer graphics for sign language recognition.

## Work Experience

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**Terrastruct** **Remote (Company in San Francisco/US)**

*Software Engineer* 2022-present (9 months)

<https://terrastruct.com/>

**Skills:** Go, algorithms, graphs, profiling.

Software engineer working on Terrastruct's autolayout engine to generate diagram layouts based on the D2 language (<https://github.com/terrastruct/d2>).

- Optimized the layout engine memory usage and speed by 2x;
- Improved internal tools making debugging and profiling easier;
- Researched and built the engine for hierarchical graphs;
- Built the engine for sequence diagrams.

**Scrapinghub/Zyte** **Remote (Company in Cork/Ireland)**

*Senior Backend Engineer* 2021-2022 (6 months)

<https://www.zyte.com/>

**Skills:** Python (Django), MySQL, Distributed systems, RabbitMQ (Celery), Kafka (Faust), Apache Mesos/Marathon, Docker, Grafana, CI/CD.

After 3 years at Zyte, I moved to a backend engineering position working on Zyte's cloud platform.

- Maintained and monitored the cloud platform alongside the infrastructure team
  - Cloud platform stats: tens of instances of 6 services; thousands of hourly web scraping jobs running on a 30+ computers clusters.
- Improved observability through Grafana dashboards and alerts;
- Built an auto scaled scheduler on top of Mesos to improve the cluster's resource usage;
- Organized the team to rotate daily on internal incident responses so that people could focus on their tasks.

**Scrapinghub/Zyte** **Remote (Company in Cork/Ireland)**

*Python Developer (Team Lead, since 2021)* 2018-2021 (3 years)

<https://zyte.com/>

**Skills:** Python, scrapy, ETL, AWS S3, Docker, Pandas, matplotlib.

Python developer in the delivery team building custom web crawlers based on customer demands.

- Delivered hundreds GBs of data (product catalogs, entertainment, social media) working with customers all around world: FAANGs, \$B hedge funds, and startups;
- Led teams and projects of 4 people;
- Built pipelines to improve data quality, fix data points and detect data drifts;
- Wrote on Zyte's blog: How to reduce noise in the data through data parsing, Scrapy cloud secrets: hub crawl frontier and how to use it, Extract articles at scale: designing a web scraping solution;
- Contributed to open source tools <https://github.com/scrapy/scrapy> and <https://github.com/scrapinghub>.

## **Universidade Regional de Blumenau (FURB)      Blumenau, Santa Catarina Brazil**

*Associate Professor*

*2019–2021 (2 years)*

<https://furb.br/pt>

Part-time (Saturdays only) associate professor for some classes on a Data Science Specialization course. The classes were related to Python/R for Data Science; Information Retrieval and Web Crawlers; Data Visualization. Some material is available here (Portuguese).

## **Inventti**

**Blumenau, Santa Catarina, Brazil**

*Software Developer*

*2015–2016, 2017–2018 (2 years)*

<https://inventti.com.br/>

**Skills:** C#, SQL, Javascript.

Backend engineer working on a cloud ERP and Point of Sale (POS). I joined the company for 1 year before I got a scholarship for my Master's degree and returned when I was finishing my research.

- Built a synchronization (product catalog, users, receipts) routine between the cloud ERP and standalone installed POS software;
- Collected reports from SQL databases for marketing/metrics purposes;
  - The cloud ERP was a microservice architecture with many different services and a standalone database for each service;
- Assisted the support team;
- Advocated for best practices such as continuous integration, unit testing, lean processes;
- Mentored one intern;

## **Ellevo**

**Blumenau, Santa Catarina, Brazil**

*Internship/Software developer*

*2011–2015 (3.5 years)*

<https://ellevo.com/>

**Skills:** Javascript, ExtJS, SQL.

Started as an intern and then became a software developer on a shared services center software.

- Maintained most of the frontend;
- Built a mobile friendly version of the internal messaging system;
- Maintained (backend and frontend) a module for custom forms creation;
- Advocated for best practices such as leaner processes and unit testing;
- Mentored four interns;

## **Languages**

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**Portuguese:** Fluent

*Native*

**English:** Advanced

*I can engage in social and technical conversations.*

## References

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[Batista et al., 2017] Batista, J. C., Albiero, V., Bellon, O. R., and Silva, L. (2017). Aumpnet: simultaneous action units detection and intensity estimation on multipose facial images using a single convolutional neural network. In *IEEE International Conference on Automatic Face and Gesture Recognition*, Washington, D.C, United States of America.

[Batista et al., 2016] Batista, J. C., Bellon, O. R., and Silva, L. (2016). Landmark-free smile intensity estimation. In Thomaz, C. E., Giraldi, G. A., and Gibson, S. J., editors, *Workshop on Face Processing Applications (WFPA) in the 29th Conference on Graphics, Patterns and Images (SIBGRAP'16)*, São José dos Campos, SP, Brazil.

[Silva et al., 2019] Silva, L. P. e., Batista, J. C., Bellon, O. R., and Silva, L. (2019). Yolo-fd: Yolo for face detection. In *2019 24th CIARP Iberoamerican Congress on Pattern Recognition (CIARP)*.

[Zavan et al., 2017] Zavan, F. H. d. B., Gasparin, N., Batista, J. C., Silva, L. P. e., Albiero, V., Lucio, D. R., Bellon, O. R., and Silva, L. (2017). Face analysis in the wild. In *2017 30th SIBGRAPI Conference on Graphics, Patterns and Images (SIBGRAPI)*.