Júlio César Batista

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Education

Universidade Federal do Paraná (UFPR)   **Curitiba, Paraná, Brazil**
M. Sc. in Informatics   *2016–2018*
Research topic: computer vision and deep learning for facial expression analysis.

Universidade Regional de Blumenau (FURB)   **Blumenau, Santa Catarina, Brazil**
B. Sc. in Computer Science   *2011–2015*
Research topic: machine learning and computer graphics to help people learn sign languages.

Work Experience

Terrastruct   **Remote (Company in San Francisco/US)**
Software Engineer   *2022-present*
I am a software engineer working on Terrastruct's autolayout engine to generate diagram layouts based D2 language. Most of the time I am reading/researching/implementing/adapting papers about graph layout algorithms; profiling and optimizing our current engine. Some key achievements involve making the layout engine 2x faster, sequence diagrams and hierarchical graphs (DAGs) layouts. **Tech**: Go, algorithms, graphs.

Scrapinghub/Zyte   **Remote (Company in Cork/Ireland)**
Senior Backend Engineer   *2021-2022*
I was a backend engineer working on Zyte's cloud platform. Mainly, I was working with Python/Django and Celery, but it also came down to infra level on Apache Mesos and Docker to run scrapy jobs on Zyte's cluster. We've started using kafka through faust in some parts of our code base to replace a bit of our workflow with RabbitMQ. I was also a contributor to our observability stack, building dashboards to check the systems' status using Grafana to perform queries on Elasticsearch and Prometheus. As in my previous role at Zyte, I was an active member of the team proposing improvements to our project, products and team. **Tech**: Python, Django, MySQL, Distributed systems, RabbitMQ (Celery), Kafka (Faust), Apache Mesos, Docker, CI/CD.

Scrapinghub/Zyte   **Remote (Company in Cork/Ireland)**
Python Developer (Team Lead, since 2021)   *2018-2021*

I was working as a python developer in the delivery team building custom web crawlers based on customer demands. Through this period I worked on many projects, ranging from small (a couple of weeks, thousands of requests, some MBs of data) to big ones (recurrent maintenance contracts, hundreds millions of monthly requests, some GBs of data), from customers all around the world. Besides web scraping and some ETL pipelines I helped building, I had to perform analysis and validation of the data we extracted or investigate issues in our scrapers. From time to time, I also helped to gather requirements for new projects or to improve the long term engagements I was working on. **Tech**: Python, scrapy, ETL, AWS S3, Docker, Pandas, matplotlib.

Universidade Regional de Blumenau (FURB)   **Blumenau, Santa Catarina Brazil**
Associate Professor   *2019–2021*

I was a part-time (a Saturday here and there) associate professor for some classes on a Data Science Specialization course. The classes I have taught were related to Python/R for Data Science; Information Retrieval and Web Crawlers; Data Visualization.

Inventti   **Blumenau, Santa Catarina, Brazil**
Software Developer   *2015–2016, 2017–2018*

I was working as a software developer using C# and ASP.NET, but also helped in frontend development using Angular, Vue, and Javascript; data analysis using python notebooks and SQL for feature discovery. I was also responsible to mentor an intern, that became a full-time team member, during a couple of months. **Tech**: C#, SQL, Javascript.

IMAGO-UFPR Research Group   **Curitiba, Paraná, Brazil**
Researcher   *2016–2018*

I was a researcher (scholarship) working on computer vision and deep learning for facial expression analysis. My main activities included reading/writing/presenting papers and implementing methods to enhance current approaches for facial expression analysis. **Tech**: Python, OpenCV, scikit-image, scikit-learn, PyTorch, TensorFlow, and Caffe. **Papers**: [Batista et al., 2016], [Batista et al., 2017], [Zavan et al., 2017] and [Silva et al., 2019].

Ellevo   **Blumenau, Santa Catarina, Brazil**
Internship/Software developer   *2011–2015*

I started as an intern and then became a software developer. My main activities included frontend development using Javascript and ExtJS, but I also worked on the backend writing SQL queries and ASP. I was responsible for tutoring four interns on my last year. **Tech**: Javascript, ExtJS, SQL.

Languages

Portuguese: Fluent   *Native*
English: Advanced   *I can engage in social and technical conversations.*

References

[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 (SIBGRAPI'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)*.