

# CV

## Leonardo Blanger

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### professional experience

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#### Google, Taipei, Taiwan

- Software Engineer, February 2022 to now.
- Works on the Pixel Phone Project.

#### NeuralMind Artificial Intelligence, Campinas, Brazil

- Data Scientist, December 2020 to October 2021.
- Works with Machine Learning for document recognition.

#### Compasso Technologies, Erechim, Brazil

- Software Development Internship, May 2014 to October 2014.

### education

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#### University of Sao Paulo, Brazil - Institute of Mathematics and Statistics

- MSc in Computer Science. March 2018 to October 2020.
- Supervisor: Prof. Dr<sup>a</sup> Nina S. T. Hirata.
- Sao Paulo Research Foundation Scholarship.
- Focused on Machine Learning applied to Computer Vision.
- Worked with Deep Learning for Object Detection and GAN based image generation.
- **Dissertation project:** Managed to achieve good Object Detection results (in Average Precision), using significantly less labeled data, by designing a sample synthesis pretraining initialization strategy.

#### Integrated Regional University, Erechim, Brazil

- BSc in Computer Science. 2013 to 2017.
- Academic Merit, class of 2017. Average score of 9.08 / 10.
- Special focus on Algorithms and Data Structures design and analysis.
- Engaged on the ACM-ICPC programming competitions. Won the sub-regionals and reached the national finals three times.

### general skills

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#### Main

- Machine Learning for Computer Vision. Strong experience in Object Detection.
- Algorithms and Data Structures design and analysis.
- Deep Learning techniques in general.

#### Minor Skills

- Linux Programming Interface
- Natural Language Processing
- Generative Image Models, GANs
- Statistics.

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## technical skills

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- **Programming Languages:** Python, C++ (good understanding), Java (basic understanding)
- **Frameworks:** Tensorflow, Pytorch, scikit-learn, huggingface transformers, opencv, and overall ML ecosystem (pandas, matplotlib, numpy, ...)
- **Additional:** Object Oriented system design, Linux programming interface, Bash shell scripting, git, dvc.

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## additional experiences

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### Westfälische Wilhelms-Universität Münster, Germany

- Research Internship. October 2019 to March 2020.
- Supervisor: Prof. Dr. Xiaoyi Jiang
- Worked with GAN based sample synthesis for Object Detection.

### University of Sao Paulo, Brazil – Institute of Mathematics and Statistics

- Tutoring for the Algorithm Analysis course (MAC5711). August 2018 to November 2018.
- Tutoring for the Introduction to Machine Learning course (MAC0460). March 2019 to July 2019.

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## open source projects

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- `detr_tensorflow` – Tensorflow port from the original Pytorch implementation of the paper *End-to-End Object Detection with Transformers*
- `RefineDet_tensorflow` – Tensorflow implementation of the RefineDet architecture. Managed to replicate the paper's results.

(both on Github)

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## publications

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Leonardo Blanger, Nina S. T. Hirata, Xiaoyi Jiang. “**Reducing the need for bounding box annotations in Object Detection using Image Classification data**”. SIBGRAPI 2021 - Conference on Graphics, Patterns and Images. Brazil, 2021. (*accepted for publication*)

Leonardo Blanger, Nina S. T. Hirata. “**An Evaluation of Deep Learning Techniques for Qr Code Detection**”. 2019 IEEE International Conference on Image Processing (ICIP). IEEE, 2019.

Leonardo Blanger, Valmir Junior, Clair J. Jevinski, Alison R. Panisson, Rafael H. Bordini. “**Improving the Performance of Taxi Service Applications using Multi-Agent Systems Techniques**”. 2017 Meeting on Artificial and Computational Intelligence (ENIAC). Brazil, 2017.

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## achievements

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- **Current.** Codeforces rating: 2138 (Master), max. rating: 2138 (Master).
- **2017.** 23<sup>th</sup> place – ACM ICPC programming contest, Latin American regional/Brazilian national finals.
- **2016.** 2<sup>nd</sup> place – Tecnomate Libres 2016 programming contest, UTN Santa Fe, Argentina.
- **2016.** 18<sup>th</sup> place – ACM ICPC programming contest, Latin American regional/Brazilian national finals.
- **2015.** 24<sup>th</sup> place – ACM ICPC programming contest, Latin American regional/Brazilian national finals.

## languages

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- **English** (fluent)
- **Portuguese** (native)

## relevant books that i read

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- **The Linux Programming Interface: A Linux and UNIX System Programming Handbook** – Michael Kerrisk
- **Design Patterns: Elements of Reusable Object-Oriented Software** – Erich Gamma
- **Hands-On Machine Learning with Scikit-Learn and TensorFlow** – Aurélien Geron
- **Learning from Data** – Yaser Abu-Mostafa, Malik Magdon-Ismail, Hsuan-Tien Lin
- **Reinforcement Learning, an Introduction** (2nd ed) – Richard S. Sutton, Andrew G. Barto
- **The Algorithm Design Manual** – Steven S. Skiena
- **OpenIntro Statistics** – Christopher Barr, David M. Diez, and Mine Çetinkaya-Rundel

## relevant links

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- **Contact e-mail:** [leonardoblanger@gmail.com](mailto:leonardoblanger@gmail.com)
- **Personal webpage:** <https://leonardo-blanger.github.io>
- **Linkedin:** <https://www.linkedin.com/in/leonardo-blanger>
- **Github:** <https://github.com/Leonardo-Blanger>
- **Codeforces profile:** [https://codeforces.com/profile/Leonardo\\_Blanger](https://codeforces.com/profile/Leonardo_Blanger)