# Bruno Gomes Coelho

 $brunogomescoelho.github.io/\\github.com/BrunoGomesCoelho$ 

 $bruno.gomes.coelho@usp.br\\ Mobile: +55~19~983364459\\ linkedin.com/in/bruno-coelho-277519129/$ 

#### **EDUCATION**

# University of São Paulo (USP), ICMC

Bachelor's degree in Computer Science; Emphasis in Data Science; GPA: 8.8/10.0

Campus of São Carlos, Brasil Fev. 2016 - Dec. 2019 (predicted)

#### WORK EXPERIENCE

#### University of São Paulo, ICMC

São Carlos, São Paulo

Research Assistant - international scholarship by USAID

Mar 2017 - Present

- Classifying: Evaluated different models (tree classifiers, deep neural networks, SVMs, etc.) to classify different insect species; achieved highest classification accuracy (99%) in our yearly milestone report.
- Undergraduate thesis: Analyzing CNNs applied directly to raw audio data for insect classification; Demonstrating the problems with classification approaches in the context of sensor generalization

# Getúlio Vargas Fundation (FGV) and Imaflora

São Carlos, São Paulo

Aug 2019 - Present

Data Scientist

- o Data Processing: Creating an open source library for processing Brazil's timber exploration
- Illegal Exploration: Developing a django/D3 visualization tool that integrates different systems and facilitates the discovery of anomalous data. Integration of 5 years of data across 3 government maintained systems.

Birdie

São Carlos, São Paulo

Data Science Intern

Aug 2018 - Fev 2019

- Data Acquisition: Acquired more than 1 million e-commerce products through crawlers; Extraction of useful features from unstructured textual data.
- Machine Learning: Created hierarchical models for product category classification using transductive ML models; Deployed the models as micro-services and scalable internal libraries for processing 10 million+ daily products.

### Major Projects

#### • Finalist of the Data Science Games 2018

May 2018 - Set 2018

- Qualification Phase Kaggle competition: Analysed the bond market with data provided by BNP Paribas; Predicted
  customer interest in a bond using diverse data, from customer data to international market information; Final result in the
  top 30 worldwide from 220 participating universities, guarantying a place in the final.
- Final 2 day hackaton: Used e-commerce data to help predict customer interest in online shopping; Achieved original's company baseline in less than 30 hours.

#### • Co-founder of DATA - Extracurricular Data Science Group

September 2018 - Present

- o Co-Founder: Creating and structuring a extracurricular data science group recognised by the university
- **Teaching**: Weekly classes teaching basic Machine Learning concepts (statistical learning theory, K-NN, Linear Regression, SVMs, etc) and frameworks (numpy, pandas, seaborn, scikit-learn) to a class of 30 students.
- Deep Learning: Weekly DL study group focused on image recognition and paper discussion. Projects being devoloped with financing from Santander.

# • Data Mining Cup - International ML competition

April 2019 - June 2019

- o Placement: Placed 19th from 149 Teams from 114 universities in 28 countries Best team from Brazil.
- Classifying: self checkout data as fraudulent or not. Dealing with small training set and a test set 100x bigger.

# Invited Events & Side Projects

- Python for Data Science course Invited teacher: Teaching fundamentals of Data Science to industry members.
- Khipu: Latin American Meeting In Artificial Intelligence, invited participant and scholarship receiver.
- 5th Mathematics Solutions Workshop for Industrial Problems: Invited participant.
- Programming Tutor (12 months): Taught programming (JavaScript and HTML) to underprivileged communities.
- HTN: Full sponsorship to Hack The North 2018, Canada's biggest hackaton.

#### TECHNICAL SKILLS

Languages: C, Java, Python, JavaScript, SQL

Frameworks: SciPy, Scikit-Learn, Pandas, Seaborn, Django

Technologies: BeautifulSoup, Scrapy, Git, Docker, Airflow, Jupyter, PyTorch, Torch, TensorFlow, Dash

# Awards

- Honorable mention on best article at USP's International Symposium of Undergraduate Research International Stage. Less than 600 mentions given from over 3200 applicants.
- Recipient of Academic Featured Student (2016), for students with a GPA above 9.0/10.0. Around 7 in each 120 students are awarded each year.
- Silver medal on Elo's Merchant Category Recommendation on Kaggle. Over 4000 teams of 1-4 people took part.