Av. Rómulo Naón 2350
C1430EPL, Buenos Aires, Argentina

+5491140826338
gonzalobb@gmail.com
github.com/capitantoto

Gonzalo Barrera Borla

Industry Experience

2021 – 22 **Engineer Manager, Data Science**, *Jampp*, Remote
I defined development priorities for my team alongside Tech and Product managers. I coordinated the migration from in-house GLMs estimators to LightGBM. We professionalized the team, by implementing agile methodologies, documenting internal libraries and setting reproducibility standards for our analysis. I wrote the first career ladder, updated the technical exams and grew the team from 7 to 12 people.

2019 – 20 **Senior Data Scientist**, *Jampp*, Buenos Aires
I assisted in the development of the income optimization engine for our Real Time Bidding (RTB) service. We presented the results in the 2019 KDD. Our team was responsible for the system predicting ads' conversion rates (win rate, CTR, CVR). We trained cheaply on several billions observations with an in-house, online SGD algo, and processed 1M+ auctions per seconds, using strongly regularised GLMs.

2016 – 19 **Expert Data Analysis Advisor**, *Jefatura de Gabinete de Ministros*, BA
Our team implemented an end-to-end business intelligence system to integrate data from key systems of the National Public Administration (e.g. Budget, Payroll, Public Policies). I worked in defining the data model definition and developing ETLs, apart from advising the Justice and Economy ministries on how to define their OKRs within the system.

2013 – 16 **Business Analyst**, *NASCAR Members Club*, Buenos Aires & Charlotte, NC
I automated all operative reports for Marketing and Logistics. I designed and executed a multiple hypothesis test in order to choose a subscription plan to minimise subscribers' churn. I reduced credit card chargebacks significantly with a logistic model trained on our members' past purchase history.

Teaching Experience

2nd sem. 2021 **External Professor**, *Facultad de Cs. Exactas y Naturales, Facultad de Ingeniería, UBA*, Buenos Aires, Virtual
I taught "Machine Learning in Graphs", with Prof. Martín Elías Costa, Ph.D. Video lectures available at Youtube, exercise guides and didactic materials at GitHub.

2012 – 15 **Teaching Assistant**, *Facultad de Cs. Económicas, UBA*, Buenos Aires
I taught "Statistics II", with Prof. Silvia Vietri, Ph.D..

2012 – 17 **Mathematical Olympiad Coach**, *Colegio Boston, Escuela Intl. New Model y Colegio Bayard*, Buenos Aires
Middle & High School levels.

2006 – 16 **Tutor privado en Matemática, Física y Química**, Buenos Aires
High School and Undergraduate levels.

Academic Record

2017 – 21 **MSc in Mathematical Statistics**, *Instituto del Cálculo, FCEyN, UBA*
GPA 10.0

Thesis **Fermat Distance in Kernel Density Estimators**, in progress
I propose to train a KDE classifier with a data-learned distance - Fermat's Distance - instead of the customary euclidean distance in order to learn not only the sample density, but also its geometry (i.e. its supporting Riemmannian manifold). I evaluate the classifier against related algorithms such as Naive Bayes, and state-of-the art techniques such as GBTs and NNs. Director: Pablo Groisman, Ph.D.

2009 – 14 **Licenciatura (~MSc) en Economía**, *Facultad de Cs. Económicas, UBA*
GPA 8.94. I graduated *magna cum laude* as class valedictorian.

Thesis **The limits of electoral predictability**
Using open data from 2013 legislative elections, I Usando datos abiertos de las elecciones legislativas nacionales del 2013, primero estimé el mínimo error posible en la predicción del resultado del comicio, en función del tamaño muestral; luego, analicé la veracidad de afirmaciones periodísticas contemporáneas. Públicamente disponible en GitHub [link]. Director: Silvia Vietri, Ph.D. Grade: 10.0.

Languages

- Spanish - Native
- English - Bilingual *CPE (CEFR C2), 2008. Grade: A*
- French - Advanced
- Portuguese - Advanced

Computer Skills

Fluid Python (incl. scientific stack) , SQL, R, Unix OSs, Git, AWS, R, Tableau

Functional Airflow, Jenkins, GCP, JavaScript, HTML/CSS, Ruby, MATLAB, LaTeX, Pentaho

Other things I've Done and Like

- At PyData 2019 I presented "Optimal Bidding: a dual approach" from the earlier in the year AdKDD conference to the local community.
- fcen-amateur is an open GitHub organization in which I share solved exams and practices from every course I've given or taken at FCEyN, fostering programming practices in the academic community.
- pydatajson, a library for managing CKAN metadata, is part of the Inter-American Development Bank "Code for Development" FOSS program.
- I really enjoyed Machine Learning, from Stanford at Coursera, teaching to code fundamental machine learning algorithms from scratch.
- Mathematical and Chemistry olympiads were my favorite K-12 activity. I got international awards in the former, and national ones in the latter.