

João Matias

Lisboa, Portugal

✉ joaopmatias@gmail.com • ☎ (+351) 93 250 6061 • 🌐 joaopmatias.github.io • in www.linkedin.com/in/joaopcmatias

SUMMARY

Data Scientist and Engineer with a background in Mathematics. Enthusiast problem solver with experience writing performant code and algorithms. Broad experience with Python, Java, and bash scripts, among others. Advocate for automation and observability.

Passionate software developer, constantly pursuing higher standards and proactively testing innovative ideas. Dedicated team player always encouraging the sharing of knowledge.

Accustomed to dealing with technical concepts and with great attention to detail. Ability to tackle challenges and implement creative and reliable solutions.

Interests: Data Science, Engineering, Python and Open Source Software.

EXPERIENCE

- **Senior Data Scientist**, Talkdesk Apr 2023 – Present
- **Data Scientist**, Talkdesk Apr 2019 – Apr 2023
 - Developed time-series algorithms to forecast call centers activity in a medium term horizon.
 - Implemented stable solutions in R and Python to use directly in Java microservices.
 - Wrote procedures to evaluate the quality of forecast algorithms.
 - Maintained surrounding infrastructure including CI/CD pipelines.
 - Contribute to improve database performance (Postgres).
 - Encouraged best practices.
 - Developed and shared tools to automate routine manual tasks for peers.
- **Graduate Teaching Assistant**, The Pennsylvania State University Aug 2012 – Aug 2018
 - Taught courses at an undergraduate level ranging from college algebra to multivariable calculus, while conducting my own research. Also managed the associated online platform by uploading extra materials and grades.

PROGRAMMING

- **Advanced:** Python, R, Java, Git, Bash, Docker, SQL, \LaTeX
- **Basic:** Scala, C++, C#, Terraform, Spark, Emacs

EDUCATION

- The Pennsylvania State University**, State College, PA, USA
 - Ph.D. in Mathematics, Aug 2012 – Dec 2018
 - Specialization: Combinatorics and Number Theory
 - Dissertation: *Prime geodesic theorem for complexes of $\text{PGL}_3(F)$ and $\text{PGSp}_4(F)$.*
- Instituto Superior Técnico (IST)**, University of Lisbon (UL), Lisbon, Portugal
 - Master in Applied Mathematics Sep 2010 – Jul 2012
 - BSc in Applied Mathematics and Computation Sep 2007 – Jul 2010

ADDITIONAL EXPERIENCE

- **Data Science Academy**, Coimbra Jan 2020 – Feb 2020
 - Organized sessions and materials on Machine Learning and Neural Networks based algorithms used in time series analysis.
- **AI Sunsets**, Coimbra Sep 2019
 - Gave a workshop on convolutional neural networks and image classification using Tensorflow to university students.
- **Science Outreach**
 - Assisted in science activities for high school students as a volunteer in *Escola Aleph* (2008-2009) and *HAC* (2018-).
 - Tasks included interacting individually with the students, and organization of sessions with math problems.
- **Competitive Programming**
 - Participation in *Google Code Jam*, *Codeforces*, *Hackerrank*, and *Leetcode*.
- **Multiple Research Fellowships** (Undergraduate Student) 2007 – 2011
 - Studied various extra-curricular subjects including: knot theory, number theory, plane geometry and algebraic geometry. These projects led to two publications in peer-reviewed journals.
- **Math Olympiads** 2002 – 2009
 - Represented Portugal in international competitions, and won medals multiple times.

LANGUAGES	Portuguese: native language	English: fluent
PROFESSIONAL TRAINING	<p>Coursera</p> <ul style="list-style-type: none"> ▪ <i>Machine Learning</i>, offered by Stanford University ▪ <i>Sequence Models</i>, offered by DeepLearning.AI ▪ <i>Bayesian Statistics: From Concept to Data Analysis</i>, offered by UC Santa Cruz ▪ <i>Functional Programming Principles in Scala</i>, offered by EPFL <p>Datacamp</p> <ul style="list-style-type: none"> ▪ Airflow and PySpark <p>Udacity</p> <ul style="list-style-type: none"> ▪ <i>Deep Learning</i>, offered by Google <p>Penn State World Campus</p> <ul style="list-style-type: none"> ▪ <i>Graduate Student Online Teaching Certificate</i> <p>XSEDE Workshops</p> <p>Participation in seminars given by the <i>Pittsburgh Supercomputing Center</i> on parallel computing and supercomputing. The technologies shown include Hadoop, Spark, OpenACC, and OpenMP.</p>	