Abdelhakim Bendjabeur

Data Scientist @Kapten
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EDUCATION

PIERRE-AND-MARIE-CURIE UNIVERSITY
Master's degree in Artificial Intelligence and Decision
Distributed Agents, Robotics, Operations Research, Interaction, Decision.
http://androide.lip6.fr
Grad. 2016 | Paris, France

SKILLS

DATA SCIENCE

• Machine Learning (Supervised, Unsupervised, and Reinforcement Learning)
• Operations Research (Problem Solving, Linear Programming, Graph Theory, ...)
• SQL
• Data Visualization: Tableau, Metabase, Python (matplotlib, seaborn, plotly, ...)
• Statistics

SOFTWARE ENGINEERING

Back-end development in Python, Golang and NodeJS: data pipelines, APIs, workers, scripts, etc.

TOOLS AND TECHNOLOGIES

• Scikit-learn • LightGBM • Pandas • Tableau Software • Matabase • Plotly • Seaborn • Google OR Tools • NetworkX • OSRM • GCP • AWS • Docker • Kubernetes • Git

LANGUAGES

• Arabic • English • French • Spanish

INTERESTS

• Photography

EXPERIENCE

KAPTEN | Data Scientist/Software Engineer
October 2016 – Present | Paris Area, France
Working on data-driven projects from end-to-end : deliver Machine Learning micro-services into production starting from the problem definition to the release.

ORANGE LABS | Operations Research Intern
February 2016 - August 2016 | Paris Area, France
Implemented a portfolio of algorithms to solve the Facility Location Problem (FLP) to serve Content Delivery Networks (CDNs) in 5G networks.

PROJECTS

Driver Acceptance | Python + Flask + LightGBM + MongoDB + GCP
Built and deployed a binary classifier that predicts whether a driver is going to accept or refuse a ride offer: It helped increase the number of rides as well as improve user experience.

Credit Approval | Python + Flask + LightGBM + MongoDB + GCP
Built and deployed a binary classifier that predicts whether a client can pay the ride in the near future when payment authorized fails and grant them a credit: It avoids missing out on would-be rides, improves user experience, builds trust and reduces fraud.

Driver Segmentation | Python + Flask + scikit-learn + Postgres
Participated in writing the micro-service that performs weekly segmentation on the drivers fleet from a performance perspective: It helped us build a more effective incentives program and helped the Partner Relations to adapt their way of communicating with the drivers given the cluster they were in.

Routing Engine | Python + OSRM + GCP
Participated in building an in-house routing engine that uses historical data to provide accurate ETAs (estimated times of arrivals): It helped limit our costs while maintaining our user experience.

ML Architecture | Python + NodeJS + AMQP + GCP
Participated in building the Kapten's Machine Learning Architecture:
- built a project template generator for Machine Learning micro-services that contains all the common elements that can exist in ML micro-services: the API, the database connector, the message broker client, etc.
- Participated in the the creation of the our Data Provider Gateway.
It helped increase the team's productivity and free time to do more important tasks.

Driver Switch POC | Python + Graph Theory + AMQP
Built and deployed a micro-service prototype that switches rides between drivers during the approach to reduce ETAs and increase bother riders and drivers user-experience: We used graph theory and applied a linear programming algorithm to solve this problem.

Drivers Incentives Strategies | Python + Flask + AMQP
Proposed drivers incentives strategies to kick-start the business when the market was supply-constrained. It relied on the driver segmentation mentioned earlier. I built a simulation tool to prove the return on investment. And I also participated in the development of the micro-service and the monitoring.