



Graduation Certificate

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Certifies that

Ummuhan Demir Biten

has successfully completed the

Data Analytics Full-Time Bootcamp October 2021

<ACQUIRED SKILLS>

- Apply probabilistic thinking to your analysis using intermediate-level statistics: descriptive stats, inferential stats, probability distributions, etc.
- Write simple to complex queries in SQL to extract information from databases in order to manipulate data: SQL clauses, joins, subqueries, stored procedures, functions.
- Manage end-to-end ETL (extract-transform-load) Pipeline: APIs; WebScraping.
- Choose the most insightful visualization to enhance decision-making in your team.
- Use storytelling to increase engagement, understanding, and impact of your presentations.
- Use Tableau as a business intelligence tool: build reports, stories, and dashboards.
- Use Command line and Git flow to manage your projects.
- Use Python coding for processing data, make the data ready for analysis and modeling: Regular expressions, functional programming, Lambda, map, reduce, filter, error handling, OOP.
- Use Pandas, Seaborn, Matplotlib, Scikit Learn, and other popular libraries to build your analysis with Python.
- Build different machine learning models (supervised and unsupervised) to make predictions, compare different models, and choose the best performing model: Feature extraction and engineering, model evaluation, pipelines.
- Use ML and analysis capabilities to solve business needs: build recommender systems, survival analysis, time series analysis, network analysis, text mining, NLP, etc.
- Use Agile & Lean as primary working frameworks: standups, retros, values, kanban, MVP, constraints vs scope, etc. to ensure good collaboration and workflow.

Tiago SANTOS
General Manager | Barcelona



Gonzalo MANRIQUE
Co-Founder | Ironhack