Federico Spatola

Born in Palermo, moved to Trieste for higher education. Nowadays one of the things I like the most is to spend my time (both at work and for fun) developing Python applications and managing data

Palermo, Italy

LinkedIn (https://it.linkedin.com/in/federico-spatola)

Github (https://github.com/federicsp)

Career

Python Developer / Data Engineer (Immobiliare.it SPA)

19/04/2021–now
Palermo-remote

Contributing to ETL services, REST APIs, SQL & NoSQL databases, containerization, application deployment.

Full stack developer (Xpand Group LTD)

02/11/2020–02/02/2021
Belfast-remote

Created web-scraping scripts in Python to extract data from various sources.

Technical Skills

Data Engineering

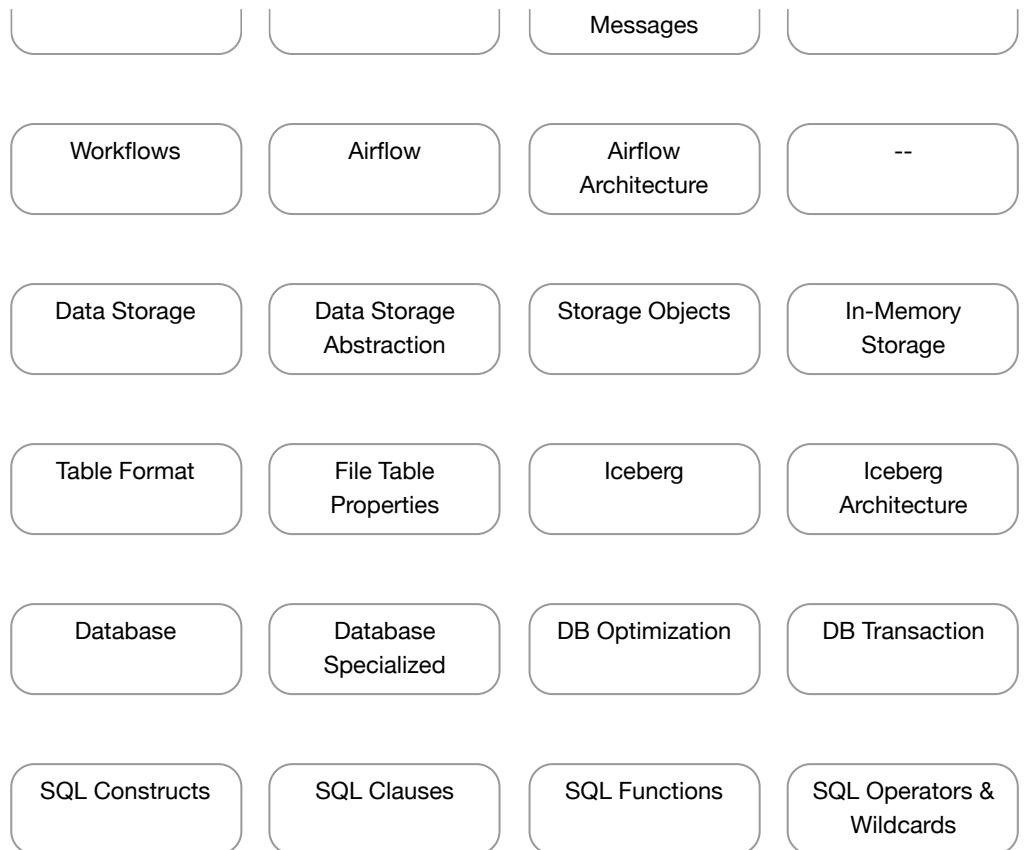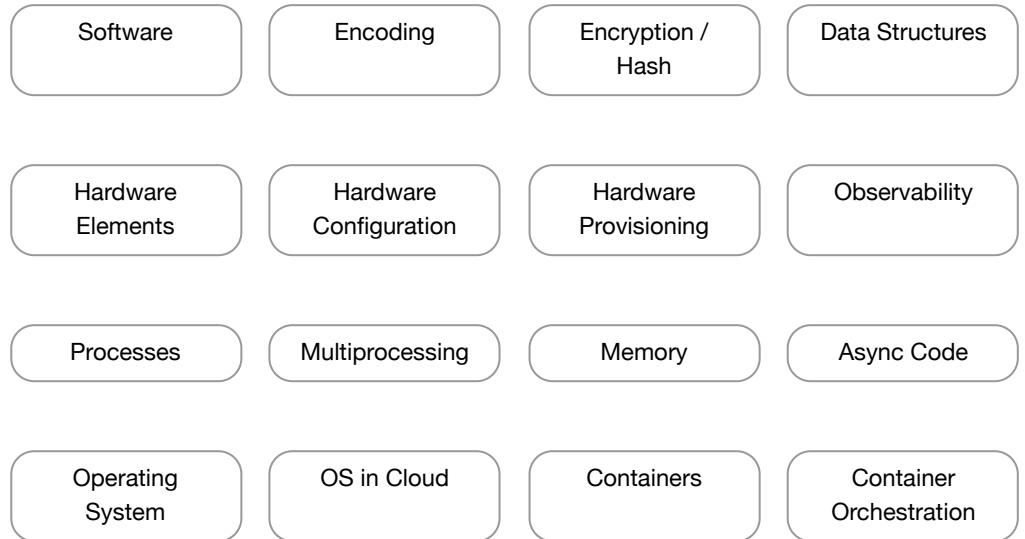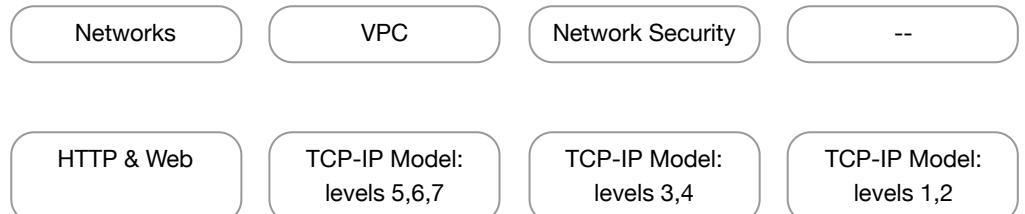|			
Data Pipeline	Data Transformation	Data Source & Serving	--
Data Governance	Data Governance Tools	Data Platform Governance	Operational vs Analytics
Data Platform	Platform Examples	Spark Cloud	--
Distributed Computing	Spark Architecture	Apache Spark	Spark Extensions
ELT	DBT	Brokers	--

		Messages	
Workflows	Airflow	Airflow Architecture	--
Data Storage	Data Storage Abstraction	Storage Objects	In-Memory Storage
Table Format	File Table Properties	Iceberg	Iceberg Architecture
Database	Database Specialized	DB Optimization	DB Transaction
SQL Constructs	SQL Clauses	SQL Functions	SQL Operators & Wildcards

Software

Software	Encoding	Encryption / Hash	Data Structures
Hardware Elements	Hardware Configuration	Hardware Provisioning	Observability
Processes	Multiprocessing	Memory	Async Code
Operating System	OS in Cloud	Containers	Container Orchestration

Web & Networking

Networks	VPC	Network Security	--
HTTP & Web	TCP-IP Model: levels 5,6,7	TCP-IP Model: levels 3,4	TCP-IP Model: levels 1,2

Web Server	Web Proxies	Web DNS Server	Web Stack
Backend	Backend Elements	Web API	--

Software Design

Design	Design Disaster Recovery	Design Testing	--
Easy Algorithms	Array Algorithms	Tree Algorithms	Complexity

Agile & Git

Agile	Agile Alternatives	Agile Tools	--
Git	Git Tools	GitLab Hosting	GitLab CI

Python

Python Basics	Python Execution	Python Classes	Python Data Structures
Python UV	Python Build	--	--
Python Data Processing	Polars Library	Data Science	Generative AI

Linux

Linux	Linux Daemons	--	--

Education

Master in Statistical and Actuarial sciences

University of Trieste, Trieste (09/2018 - 03/2021)

Erasmus+ for study

University of Ljubljana, Ljubljana (02/2020 - 07/2020)

Bachelor in Mathematics

University of Trieste, Trieste (09/2014 - 07/2018)

Scientific maturity

Liceo scientifico Galilei, Palermo (09/2009 - 07/2014)

Cities

Where I have lived

- Palermo >20 years
- Trieste ~6 years
- London Derry ~1 month
- Copenhagen ~1 month
- Ljubljana ~2 months

Book I've read… at least partly

Data Engineering

- Fundamentals of Data Engineering - Joe Reis, Matt Housley - edition 2022
- Data Pipelines with Apache Airflow - Bas Harenslak, Julian de Ruiter - edition 2021
- Python and Snowflake with Snowpark - Snowflake Inc. - edition 2021
- Designing Data-Intensive Applications - Martin Kleppmann - edition 2017
- Streaming Systems - Tyler Akidau, Slava Chernyak, Reuven Lax - edition 2018
- MySQL Architecture - Lenz Grimmer, Jeremy D. Zawodny - edition 2005
- MongoDB The Definitive Guide - Shannon Bradshaw, Eoin Brazil, Kristina Chodorow - edition 2019
- Data Mesh: Delivering Data-Driven Value at Scale - Zhamak Dehghani - edition 2022
- Apache Spark: The Definitive Guide - Bill Chambers, Matei Zaharia - edition 2018
- Kafka: The Definitive Guide - Neha Narkhede, Gwen Shapira, Todd Palino - edition 2017
- Iceberg: The Definitive Guide - - edition 2023
- High Performance MySQL - Silvia Botros, Jeremy D. Zawodny - edition 2012

Python Development

- Python Testing with Pytest - Brian Okken - edition 2017
- Python Cookbook - David Beazley, Brian K. Jones - edition 2013
- Effective Python - Brett Slatkin - edition 2020
- Fluent Python - Luciano Ramalho - edition 2022

Software

- Version Control with Git - Jon Loeliger, Matthew McCullough - edition 2012
- Clean Code Principles and Patterns: A Software Practitioner's Handbook - Robert C. Martin - edition 2008
- Linux Administrators Handbook - Evi Nemeth, Garth Snyder, Trent R. Hein - edition 2018
- Docker: Up & Running - Sean P. Kane, Karl Matthias - edition 2023
- Terraform: Up & Running - Yevgeniy Brikman - edition 2019
- Kubernetes in Action - Marko Luksa - edition 2018
- Kubernetes Up & Running - Brendan Burns, Joe Beda, Kelsey Hightower - edition 2022
- Telemetry and Observability for Engineers - - edition 2021
- Observability Engineering - edition 2021

Web

- The Road to GraphQL - Robin Wieruch - edition 2019
- FastAPI: Modern Python Web Development - Bill Lubanovic - edition 2023

Design Patterns

- Design Patterns: Elements of Reusable Object-Oriented Software - Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides - edition 1994
- Microservice Architecture - Irakli Nadareishvili, Ronnie Mitra, Matt McLarty, Mike Amundsen - edition 2016