

Thomas DAMBRIN

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EXPERIENCE

- Societe Generale Corporate and Investment Banking** – Risk Division, Quantitative Developer September 2023 – Present
Major International Investment Banking Company, New York City (USA)
- Monitor the Bank risk exposure by automating the computation of risk metrics on Fixed Income and Equity derivatives e.g stress tests, VaR, SVaR
 - Develop, maintain, monitor and release Python libraries for internal system APIs and databases. Used by teams worldwide for reporting or analysis
- Tech stack: *Python, Git, Internal Softwares, Excel, MySQL, REST APIs*
- Mazars** – Data Advisory Team, Data Engineer & Scientist Consultant June 2022 – August 2023
Global audit & consulting group with a wide range of expertise fields, Paris (France)
- Architect and develop data lakes and warehouses speeding process up to 80% for a real estate industry leader with GB sized DS and 100+ sources
 - Implement validation scripts and data quality management through machine learning reporting 90% of DQ issues and fixing up to 50% of outliers
 - Develop, deploy and maintain a web application for an energy industry leader uniformizing HR data from 100+ countries and 20+ ERPs solutions
 - Design and develop Snowflake extensions for Data documentation and governance strategies saving around \$30K/y compared to market solutions
 - Leverage and fine tune NLP models to create meaningful audit processes pipelines, develop a web application for interaction and data annotation
- Tech stack: *AWS, Azure, Bash, Celery, CI/CD, Elasticsearch, Git, MongoDB, Python (Pandas/Scikit/Spacy/etc), Snowflake, SQL, Talend, VueJS*
- ETIC INSA Technologies** – Software Engineer September 2021 – December 2022
INSA Lyon junior enterprise, won best French junior enterprise in 2019, Villeurbanne (France)
- Build, deploy, maintain and enrich the vehicle maintenance system of a transportation industry actor leading to a 3 consecutive projects with the JE
 - Design a state-of-the-art streaming and interactive application IT architecture for an educational mobile platform inspired by the TikTok model
 - Frame app development and manage students by providing technical lead on two €20K+ projects with 2-month end-to-end delivery processes
- Tech stack: *AngularJS, AWS (Beanstalk, RDS, S3), Javascript, PostgreSQL, Flask*
- Worldline** – Digital Banking Center, Backend Engineer Trainee May - August 2021
European leader in the payments and transactional services industry, Villeurbanne (France)
- Lead the development of back-end components for a customer-driven banking application with UI/UX design and transactional systems teams
 - Authenticate employees through corporate level system and third-party authentication solutions in a centralized access management solution
 - Interconnect 5+ transactional systems into a single REST API allowing platform-independent transaction management and information retrieval
- Tech stack: *CI/CD, Keycloak, Kotlin, OpenAPI, Spring*
- INSA Lyon** – Computer Science Tutor January - May 2021
- Prepare and host weekly trainings to 1st and 2nd year students | *Algorithmic methodology, Design methodology, Java basics, OOP fundamentals*
 - Write documents on Algorithmic methodology for beginners, support sheets for Java development and trainings on expected exam problems
 - Improve GPA from 30% to 80% over a semester and result in 2 students choosing CS specialization by breaking down the thinking processes

EDUCATION

- INSA Lyon** – Master in Telecommunication Engineering – Ranked Top 10% September 2019 - May 2022
AI (Game theory, ML, RL, DL), Blockchain, Database Management, Network Architecture and Protocols, Programming, Signal Processing
- The Hong Kong University of Science & Technology** – Academic Exchange Program January – May 2022
Blockchain and Fintech, Data Mining, Deep Learning Architectures, Finance, Machine Learning
- Polytech Annecy-Chambéry** – Bachelor of Engineering – Valedictorian September 2017 - May 2019
Automation, Computer Science & Electronics, Engineering Fundamentals (Chemical Engineering, Physics, Maths)

ACADEMIC PROJECTS

- Game Theory Research Project** 2021
- Explore mathematical properties and implement heuristic search driven planning algorithms for multi agent zero-sum NF and Bayesian games
- Cryptocurrencies And Exchange Platform Analysis** 2021
- Fetch, preprocess, store on a distributed cluster and back up open cryptocurrency rates and exchanges data for visualization & high-level analysis
- Deep Learning Approach For Traffic Engineering** 2021
- Fetch, preprocess and augment graph data and implement neural networks to solve Interior Gateway Protocol (IGP) weight optimization problem
- TCP Protocol Over UDP** 2020
- Implement TCP-like resilience and throughput optimization mechanisms over an UDP layer for multi-agent client-server communication scenarios
- Image Segmentation Research Initiation Project** 2020
- Write a state-of-the-art of graph-based approaches and reimplement random walks with GUI (parametrization/visualization) and optimization tools

REWARDS

- Ericsson: Code4Good** – National Open Innovation Challenge, 3rd prize among 60+ teams 2022
- Design an IoT oriented and data-driven indoor guidance system and pitch the solution to Ericsson's top management on stage at VivaTech Paris
- Agorize & Safran: Blackout Challenge** – National Open Innovation Challenge, 3rd prize among 150+ teams 2021
- Design a visual light communication (VLC) based indoor guidance system to help blind people and pitch the solution to Safran's top management
- Accenture: Hackathome** – National Coding Battle, 3rd prize among 80+ teams 2021
- Optimize a cloud services distribution (multi-metrics combinatorial optimization) over multiple servers through a randomized greedy algorithm

ADDITIONAL INFORMATION

- Open-Source Contribution:** Developed and released a Python based CLI for Snowflake worksheet versioning (cf Github)
- Cloud Components:** AWS, Docker, Microsoft Azure, Snowflake
- Frameworks:** AngularJS, ELK Stack, Express, Spring, VueJS
- Programming Languages:** Ada, Bash, C, C++, Go, Haskell, HTML, Java, Javascript, Kotlin, Makefile, SQL, Typescript, Python
- Languages:** English (Fluent), French (Native)
- Hobbies:** Acrylic Painting, Boxing, Basketball, Chess, City Pop Art, Fashion, Jumping Rope, Modeling, R&B, Philosophy (Ethics, Nietzsche)