Antoine Planche

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EXPERIENCE

Machine learning Intern   **Sep 2023 – Apr 2024**
Ericsson   Montreal, QC
Tech Stack: Python, PyTorch, C++
- Successfully implemented a federated learning architecture and monitored the cluster's energy consumption.
- Achieved a 35% reduction in cluster energy consumption by implementing an intelligent client selection mechanism using a pub/sub system.
- Evaluated energy efficiency across deep learning architectures (CNN, RNN, LSTM, GRU).

Instructor   **Jan 2023 – May 2023**
Ecole Estime   Montreal, QC
- Led weekly interventions at Saint Clément Ouest Elementary School in Montreal.
- Taught algorithm concepts using Scratch, Scratch JR, and programmable robots.
- Applied modern pedagogical techniques to enhance learning outcomes.

Data Analyst Intern   **Sep 2021 – Feb 2022**
SNCF   Paris, France
Tech Stack: Python, VBA, Excel, Power BI, MySQL
- Developed a Python tool for automated report generation.
- Constructed a database integrating multiple sources.
- Established Power BI reports for monitoring key performance indicators.
- Created Excel macros in VBA to maximize automation of the team's analytical tasks.

SKILLS

Technical Skills:
- **Programming Languages:** Python, Java, C/C++, Go, JavaScript, TypeScript, HTML, CSS, VBA, SQL, Bash.
- **Frameworks:** React, FastAPI, Flask, Node.js.
- **Databases:** MySQL, PostgreSQL, MongoDB, Oracle Database, SQLAlchemy, Peewee, Administration, Design.
- **Data Science:** NumPy, SciPy, Pandas, PyTorch, Scikit-Learn, Matplotlib, Seaborn.
- **Big Data:** Map Reduce, HBase, HDFS, Spark, Kafka.
- **DevOps:** Git, Docker, Kubernetes, Terraform, GitHub Actions, GitLab CI/CD.
- **Blockchain:** Decentralized consensus theory, Solana.
- **Quality:** Jest, React Testing Library, Pytest, Junit, Cypress, Selenium, Cucumber, SonarQube.
- **Cloud Services:** GCP, Firebase.
- **Network:** OSI model, TCP/IP model.

Language Skills:
- **English:** Full Professional Proficiency.
- **French:** Native.

Soft Skills:
- Effective communication and teamwork.
- Strong problem-solving abilities.
- Organization and autonomy.

EDUCATION

University of Technology of Belfort-Montbéliard   **Sep 2018 – Jun 2024**
Master of Engineering – *Data Science Specialty*   Belfort, France
- **GPA:** 3.5/4.0
- **Relevant coursework:** Networking, Operating Systems, Object-Oriented Programming, Data Structures and Algorithms, Statistics and Discrete Mathematics, Database Management and Optimization, Data Science and Artificial Intelligence.

École de Technologie Supérieure – Dual Degree Program   **Sep 2022 – Aug 2024**
Master of Engineering – *Software Engineering Specialty*   Montreal, QC
- **GPA:** 3.8/4.3
- **Relevant coursework:** Software Requirements Management, Human-Machine Interface Design, Mobile Application Development, DevOps Practices, Design Patterns and Software Architecture, Software Quality Assurance, Software Project Management.

PERSONAL PROJECTS

Technical manager of the Volunteeze project - Group of 3 people   **Sep 2022 – May 2023**
Tech Stack: React, Python, FastAPI, GCP, MySQL, Firebase
- Configured the CI/CD pipeline utilizing GitHub Actions.
- Selected development technologies and determined hosting services.
- Established Git branching and testing strategies.
- Instituted a comprehensive quality assurance plan.
- Developed the Frontend with React and the Backend with Python.

GitHub: https://github.com/AntoinePlanche/VOLUNTEEZE

Creation of an e-commerce website with recommendation engine - Group of 5 people   **Feb 2022 – Jun 2022**
Tech Stack: React, Python, Flask, UML, DigitalOcean
- Developed recommendation algorithms using Python.
- Designed and managed the database architecture.

Presentation video: https://www.youtube.com/watch?v=jyoZctC-t9k

HOBBIES

Sports: Weightlifting, Tennis, Badminton.
Leisure Activities: Reading, Watching Movies, Playing Chess.