MAXIME WOLF

Cambridge, MA

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SLOAN SCHOOL OF MANAGEMENT Cambridge, MA

Candidate for Master of Business Analytics, Operations Research Center, August 2024 2023 - Present

- Coursework: Machine Learning, Optimization Methods, Analytics Edge, Analytics Lab, Analytics to Action
- ML project: Enhanced diabetes treatment decisions with optimal policy trees for healthcare professionals (Julia)
- Optimization project: Streamlined bus stops selection in Boston to balance profit optimization and CO2 emissions (Julia)
- Analytics project: Predicted Spotify popularity of unreleased songs with an ensemble stacking approach; used XGBoost, Random Forest, SVM, and linear models; built an app for the user to interact with (Python)
- Activities: Technology Club, Consulting Club

CENTRALESUPELEC, PARIS SACLAY UNIVERSITY Gif-sur-Yvette, France

BSc in Engineering, MEng in Applied Mathematics (GPA: 4.2/4.3; top 5% of the class) 2020 - 2023

- Coursework: Deep Learning, Advanced Statistics, Advanced Probability, Algorithmics, Statistics in Finance
- ML contest: Led team to 1st rank among 250, classified geographical areas, achieved 72% F1-score with XGBoost (Python)
- Research: Studied quantum computing methods to improve energy forecasting models deployed by EDF (major electricity supplier in France) to deliver energy to 40M+ customers globally; completed a 50-page report for faculty and students
- Activities: Trainer and teacher for 20+ students at the AI/ML Club

TECHNICAL SKILLS

- Python (pandas, scikit-learn, TensorFlow, PyTorch, Transformers), R, Julia (JuMP, Gurobi), SQL, Git

EXPERIENCE

MIT OPERATIONS RESEARCH CENTER Cambridge, MA

Research Assistant to Professor Georgia Perakis (Python: gurobipy, PyTorch) 2023 - Present

- Collaborating with IBM Watson AI Lab on "Online and Offline End-to-End Learning under Endogenous Uncertainty"
- Combining optimization and prescriptive models to advance pricing strategy at Boston Scientific, outperforming standard multi-armed bandits' methods in speed of convergence by 15%; delivering weekly analytical results to the research team

MIT SLOAN | CMA CGM Cambridge, MA

Analytics Lab Team Member (Python: PyTorch, Transformers, Streamlit, pandas) 2023 - Present

- Built an AI email assistant tool; utilized similarity detection models (Sentence Transformer) and LLMs (GPT-3.5), boosted 400+ customer agents' productivity by 38%, resulted in $2.2M/year in productivity gains
- Created a Streamlit product prototype and presented to the Director of Data Strategy and Innovation; ranked 3rd/22 teams

THE APPLIED AI COMPANY (AAICO) Dubai, UAE

Venture focused on automating human processes within healthcare, government, and insurance sectors

ML Engineer Intern | Part-time ML Engineer (Python: Transformers, NLTK, PyG, scikit-learn) 2022 - 2023

- Leveraged Transformers (ClinicalBERT) and Graph Neural Network models to extract adverse effects of drugs from medical literature; saved 80% reviewing time to customers by streamlining the analysis process
- Conceptualized and developed multi-modal AI pipeline for a $60M project; utilized Twitter API and graph-based models to identify bot behaviors on key topics with 70% accuracy; successfully deployed models in AWS production environment

PARIS DIGITAL LAB Paris, France

Creativity lab where trainees work full-time and collaboratively with corporations to prototype new usages

Data Scientist (Python: TensorFlow, scikit-learn, Transformers, pandas) Spring 2022

- Developed an iOS application for start-up OOrion to help visually impaired people detect objects; applied YOLOv5 model to achieve real-time and 90% accurate predictions; prototype now integrated into a product sold by start-up
- Analyzed customer insights from phone calls for an insurance company; performed Speech-to-Text and entity/relationship extraction with CamemBERT; reached 92% F1-score and communicated results to the AI department
- Built a vegetation management system for idverde, Europe's leading provider of grounds maintenance; integrated a feedback loop with XGBoost using weather API and data collected with IoT objects; cut workers' interventions by ~30%

ADDITIONAL INFORMATION

- Coursera Certificates: Machine Learning Course (Stanford University); Deep Learning Specialization (DeepLearning.AI)
- Languages: French (native), German (intermediate)
- Interests: piano (twelve years in a music conservatory), badminton, traveling