Davìd Ferrari

Software Engineer | AI/ML Focus

CONTACT

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PROFESSIONAL EXPERIENCE

Software Engineer | Primeur Srl, Milan (Italy) | 06/2023 - Present

- **End-to-end ML API** for pattern recognition in large-scale event timing datasets, implementing clustering algorithms to identify recurring patterns and developing supervised learning pipeline for anomaly detection
- **Developed automated migration module** for transition from legacy C application to new Quarkus system, automatically exporting configurations and mapping all functionalities
- **Secured enterprise Java distributed application** against OWASP Top Ten vulnerabilities
- **Built and maintained CI/CD pipelines** using Jenkins and Docker
- **Presented technical demos** of new applications and features during company training sessions

IT Analyst | Cams Srl, Bologna (Italy) | 01/2022 - 04/2023

- **Automated several IT workflows** improving operational efficiency
- **Designed and developed company website** and customer care systems

PERSONAL PROJECTS

Custom Tensor Operations Library | Personal Project, Ongoing

- Implementing high-performance tensor multiplication in C with SIMD vectorization
- Benchmarking parallelization strategies and memory optimization techniques
- Measuring performance gains across different computational approaches and optimization levels

SELF-LEARNING

Deep Learning Foundation | Personal Study, Current

- Building and training neural networks from scratch to understand fundamental architectures
- Implementing various classification and regression models using PyTorch
- Studying optimization techniques, activation functions, and regularization methods

EDUCATION

Bachelor of Physics, First Class with Honors | University of Bologna | 2023

TECHNICAL SKILLS

AI/ML: Supervised learning, Unsupervised learning (clustering), Anomaly detection, Neural network architectures, Deep learning fundamentals, Pattern recognition
Systems & Performance: Memory optimization, Vectorization (SIMD), Parallelization, Performance benchmarking, Low-level programming
DevOps & Administration: Linux administration, End-to-end CI/CD workflows, Multi-node containerized environments (Docker Compose), Legacy build systems management

TOOLS

AI/ML & Data Science: PyTorch, Scikit-learn, Numpy, Pandas, Jupyter Notebook
Development & DevOps: Linux, Windows, Bash, PowerShell, Docker, Docker Compose, Make, Poetry, Maven, Jenkins, Git/Github/Bitbucket
Databases & Servers: PostgreSQL, H2, MongoDB, OpenLiberty, TomEE
Frameworks: FastAPI, Flask, Quarkus, Spring
Programming Languages:

- *Major***:** C, Python, Java (8-21)
- *Minor*: JavaScript, Groovy