

# Mario Baldi

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## EXPERIENCE

### Senior Software Engineer & DevOps Engineer

Edflex Italy

February 2024 – Present, Remote

- PHP Symfony Web Application development; React Frontend;
- Python ETL pipelines on big data build in Docker Containers.
- Multi-node Kubernetes cluster; Canary Deployment and CI/CD based on GitHub Actions.
- Tools: Metabase; Sentry; Datadog; Keycloak; Kubernetes.

### Senior Software Engineer & Solution Architect

OfCourseMe

October 2021 – February 2024, Remote

- Distributed and scalable event driven cloud architectures on AWS for data mining and processing.
- Large scale microservices applications: Crawling; Scraping; Python RESTful API;
- PHP Symfony web applications; Vue.js Frontend.
- Codebuild CI/CD pipelines based on Git with gitflow branching model.
- Stack: Symfony, FastAPI, Vue.js, Scrapy, Docker, Terraform.
- AWS: EC2; Elastic Load Balancer; IAM, Lambda; ECS, Cloudsearch; ElasticBeanstalk; CodePipeline/CodeBuild; S3; CloudFront; ApiGateway; MSK; DynamoDB; RDS; EventBridge; CloudWatch; Cloudformation.

### Machine Learning Engineer & Voip Asterisk Engineer

BOR Portierato e Guardania Virtuale

July 2020 – September 2021, Santa Maria Capua Vetere, Italy

- Real Time human/object detection from more than 10.000 surveillance cameras video streams.
- Firmware programming of IoT embedded ARM devices.
- VoIP solutions for video intercom based on multi tenant Asterisk PBX and SIP Protocol running on Centos on aarch64 SBCs.
- Distributed Systems for CEP analysis of streaming metadata from event-driven devices, based on Apache Pulsar, Apache Kafka and Docker containers orchestrated on AWS cloud.

### Other previous experiences as Software Developer

SOS Rifiuti; WireGaming; MadWeb; A-Solution; Freelance

January 2008 – December 2016, Caserta, Italy

- Embedded Firmware Programming; Game Development; Kiosk; Unity 3D; Web Development; Mobile Development.

## EDUCATION

### Computer Engineering – High Performance and Cloud Computing (Master Degree)

Minor in Computer & Electrical Engineering • University of Campania "Luigi Vanvitelli" • Aversa, Italy • 2017 – 2020 • Cum Laude

### Computer & Electrical Engineering (Bachelor Degree)

Seconda Università degli Studi di Napoli • Aversa, Italy • 2013 – 2017

## SKILLS

Managing: General Data Protection Regulation (GDPR); Cyber Resilience Act (CRA); Problem analysis & Problem Solving; Project Management; Kanban; SCRUM; Agile; Jira; Amazon Web Services; Strategic KPI Driven Planning; Dora Metrics

Back-End Development: Database; MySQL; Javascript; Typescript; NodeJS; Python; FastAPI; Flask; PHP; Symfony; Domain Driven Development (DDD); Test Driven Development (TDD); Behavior Driven Development (BDD)

DevOps: Docker; Kubernetes; Ansible; Terraform; Bash; Linux; Networking; Cybersecurity;

Cloud: AWS; EC2; Elastic Load Balancer; IAM; Lambda; ECS; Cloudsearch; ElasticBeanstalk; CodePipeline/CodeBuild; S3; CloudFront; ApiGateway; MSK; DynamoDB; RDS; EventBridge; CloudWatch; Cloudformation

AI/ML: Machine Learning: Tensorflow; Deep Neural Networks; Numpy; CUDA; Computer Vision; Yolo; OpenCV; LLMs (GPT, LLama, Claude); OpenAI Whisper and tts;

Front-End Development: Javascript; Typescript; jQuery; HTML; CSS; Vue.js; React; Next.js

Server Administration: VoIP; Asterisk PBX; Nginx; Nagios; Zabbix

Languages: Italian (Mother tongue); English (B2 Listening, C2 Reading, C1 Writing, B2 Spoken Production, B2 Spoken Interaction)

## PUBLICATIONS

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### **Information-Preserving Networks and the Mirrored Transform (ISBN: 978-1-7281-0824-7)**

IEEE • ISBN: 978-1-7281-0824-7 • January 2019 - January 2019

• Palmieri, F.; Baldi, M.; Buonanno, A.; Di Gennaro, G.

### **Probing a Deep Neural Network (ISSN 2190-3018)**

Springer • ISSN 2190-3018 • January 2017 - January 2017

• Palmieri, F.; Baldi, M.; Buonanno, A.; Di Gennaro, G.; Ospedale, F. Volume, Smart Innovations, Systems and Technologies, Springer, (Also presented at the Italian Workshop on Neural Networks, WIRN 2018, June 13-15, 2018).

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## INVOLVEMENT

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### **Research Collaborator**

Università della Campania Luigi Vanvitelli, Aversa, Italia • Signal Processing and Communications Research Group (MLSPTlab)

• Collaboration in Signal Processing and Communications Research Group at Università della Campania Luigi Vanvitelli.

• Machine Learning research and scientific paper writing.

• Formal programming paradigm in Matlab, Python.

• Tensorflow, Keras, PyTorch, Caffe neural network experiments.