

VALENTIN POIROT

SOFTWARE DEVELOPMENT ENGINEER

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EDUCATIONS

IMT Mines Alès

2021 - 2024

Master's Degree in Software Engineering

Czech Technical University in Prague

Juin - Juill 2022

University exchange, Computer Science/Statistics

University of Toulouse 3 - Paul Sabatier

2019 - 2021

Associate Degree in Electrical and Industrial Computing Engineering

RELEVANT COURSES

- | | | | |
|-------------------------|-----------------------|---------------------------|--------------------------------|
| • Algorithmics | • Security | • Artificial Intelligence | • Embedded Systems |
| • Software Architecture | • Data Structures | • Information Systems | • Electronics (Analog/Digital) |
| • Cloud Computing | • Database Management | • Architecture | |

EXPERIENCE

CEA LETI

Sept 2021 - Sept 2024

Software Development Engineer in Photolithography - Apprenticeship

- Design, development, and maintenance of software used for lithography processes in the semiconductor industry (Python).
- Calibration and simulation of physical models for analyzing optical system behaviors.
- Interdisciplinary collaboration: Worked closely with R&D teams, engineers, and scientists to improve the performance of lithography tools.

AEC

Avr - Juin 2021

Research Associate

- Conducted feasibility studies, prepared calculation notes, and developed diagrams for the integration of digital protections.

PROJECTS

Semantic Segmentation for Satellite Image Analysis

Study Project - IMT Mines Alès - Python, PyTorch, pandas, numpy, matplotlib

- Designed and deployed deep learning models (AlexNet, ResNet, U-Net) for the classification and segmentation of satellite images, processing over 77,000 images.
- Evaluated and optimized model performance.
- Developed a graphical interface.

Design and Optimization of a Cloud-based Social Network

Study Project - IMT Mines Alès - AWS, Python

- Developed the architecture of a social network on AWS with optimization of design patterns for microservices and DevOps integration.

TECHNICAL SKILLS

- **Languages:** Python, SQL, Linux, Java, C, C#
- **Development Tools:** VS Code, JetBrains IDE, AWS
- **Technologies/Frameworks:** Linux, Jenkins, GitHub, Docker

ASSOCIATIVE ACTIVITIES

Trésorier du comité 2023 de l'association EMA'IT

- Support for associations and digital projects of IMT Mines Alès students