Marvin Martin (He/Him/His)

Software Engineer, Machine Learning

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EDUCATION

Boston University

Boston, MA

M.Sc. in Computer Information Systems 01/2021-09/2021

- Major: Data Analytics, Grade A
- Relevant Coursework:

Analysis of Algorithms, Big Data Analytics, Advanced Programming Techniques, Machine Learning, and Deep Learning.

Ecole Centrale d'Electronique

Paris, FR

M.Sc. in Computer Information Systems 09/2018-12/2020

- Major: Data Science, Grade A (Top 5%)
- Relevant Coursework:

Advanced Database, DevOps, Web Development, Cloud computing, and Mathematics for Data Science.

INSEEC London

London, UK 01/2019-05/2019

B.Sc. in Computer Science • Relevant Coursework:

Java, Probability and Statistics, and Public Speaking.

Heriot-Watt University

Edinburgh, UK 01/2018-06/2018

B.Sc. in Computer Science • Relevant Coursework:

Electronics, C Language, and Business Management.

Institut Supérieur d'Electronique Paris, FR Associate of Science 09/2016-12/2018

• Relevant Coursework: Calculus I and II, Linear Algebra, Analysis I and II, Mechanics Physics and Signal Processing.

EXPERIENCE

Centre Securité Requin (CSR) Réunion, FR Machine Learning Engineer Consultant 11/2020-Now CSR is a public research center that studies shark attacks.

- Build Neural Network for underwater shark classification.
- Research related to Adversarial Domain Adaptation.
- Create pipelines using Nifi to classify videos in real time.
- ullet Investigate model reliability based on weather conditions. ${f SKILLS}$

Heuritech Paris, FR

Training Data Operator Intern 04/2020-08/2020 Heuritech builds visual recognition and trend forecasting technologies for fashion industry.

- Developed Python internal automation tools.
- Ran data engineering tasks to improve datasets.
- Trained Deep ConvNets from containers.
- Active Learning research on acquisition functions.
- Training metrics investigation.
- Prioritized strategies for error and bias reduction.

Lectra, Innovation Lab

Lab Intern

Bordeaux, FR 05/2019-06/2019

Lectra develops systems for the textile industry.

- Explored Generative Adversarial Network for fashion.
- Collected web data using Data Crawling techniques.

LINKS

Website LinkedIn Github Medium

PUBLICATIONS

In progress: A framework for shark detection employing underwater cameras and domain adversarial convolutional neural network (Boston University and CSR).

PROJECTS

Domain adversarial neural network [Report] [Code]

Reproducibility study of the papers: Ganin Y., et al. Domain-adversarial training of neural networks, and Pei Z., et al. Multi-adversarial domain adaptation. I increased by 0.025 the target accuracy, of the MNIST→MNISTM task.

PySpark neural network from scratch [Article] [Code]

Spark implementation of a shallow neural network to classify handwritten digits. The training can run in the Cloud with large dataset. Gradients are computed via MapReduce jobs.

Emotion based Art Generator [Article] [Code]

Conditional generative adversarial neural network (CGAN) trained to generate 64×64 painting images for a selected style (portrait, abstract, landscape or flower-painting) and emotion (positive, neutral, or negative).

LogNice [Code]

Python distributed code executor for an online coding competition platform. Code submissions are queued with RabbitMQ and Celery, then ran in a docker container. Scores are stored using a Redis database and sent to the user using SocketIO.

CERTIFICATIONS

- Workera Software Engineer Deep Learning Assessment
- Deep Learning Specialization by DeepLearning.AI.
- GANs Specialization by DeepLearning.AI.
- Deep Learning and Computer Vision A-Z.

- Languages: Python, Java, R, C, JavaScript, NodeJs.
- Libraries: Tensorflow2, Pytorch, Skit-Learn, Wandb, Spark, OpenCV, Pandas, Numpy, ReactJs.
- Tools: Git, Docker, Google Cloud, AWS, Hadoop.
- Databases: MongoDB, MySQL, FireBase, HDFS.
- Teamwork: Zoom, Notion, Slack, Slite.
- Soft Skills: Ethics, Leadership, Public Speaking.

LANGUAGES

English: Fluent French: Native Spanish: Novice

ACTIVITIES & LEADERSHIP

Comedian, Stuntman: Performed in <u>Timéo</u> in front of 1000 people. 3 times a week as a skateboarder (2016).

Sports: Skateboard (Instructor), Surf, and Slackline. **Achievements**: 300km in 3 days on a longboard.