

Data Science

Machine Learning

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EDUCATION

University of Paris-Sud - Master of Science, Computer Science Paris, France
Mathematics (Probability & Statistics), Big Data, Database, Data Structure, NLP, Linear programming 2014 - 2019

California State University of Long Beach - Study abroad program Long Beach, CA
Machine Learning, Senior Software Project, Search Engine, Software Architecture Fall 2018

WORK EXPERIENCE

Hewlett Packard Enterprise: Machine Learning Intern Mar 2019 - Present | San Jose, CA

Predicting performance issues to make preemptive upgrade recommendations for customers storage systems

Identified bottlenecks and found out that less than 5% of storage systems need a hardware upgrade

- Data engineering: Created a 5 million rows dataset by collecting telemetry data from 2,000 systems over 6 months
- Data Visualization: Produced 4 dashboards to get insights from the data by creating more than 50 custom charts and diagrams
- Feature Engineering: Selected important features then applied dimensionality reduction with PCA to go from 63 to 4 features
- Unsupervised Learning: Implemented clustering with KMeans and DBSCAN to identify saturated systems and label the dataset
- Supervised Learning: Implemented a KNN classifier to predict if a storage system needs an upgrade with 96% accuracy, 87% recall
- Time Series Forecasting: Applied ARIMA method to forecast the future state of systems with an RMSE of 0.41

Idemia: Software Engineer Intern – Credit Card Management Application May - Aug 2018 | Paris, France

Developed a credit card management application with more than 10 features from scratch

- Defined the database schema with more than 50 tables using MySQL Workbench
- Implemented the backend of the web application following the MVC design pattern with Laravel framework in PHP
- Implemented the frontend and designed a responsive User Interface with jQuery and Ajax

MACHINE LEARNING PROJECT

Deep Learning / Image Classification: Training a Neural Network to recognize handwritten digits – MNIST Dataset

- Implemented multiple Convolutional Neural Networks to classify 10,000 images using Keras

Neural Network	Layers	Number of parameters	Epochs	Accuracy
First model	2	25,450	4	87.3%
Second model	10	730,602	20	97.2

Search Engine Technology in Java

- Programmed a search engine by indexing a directory of 36,000 files.
- Documents matching the query are sorted by relevancy
- Machine Learning: Text classification of the indexed documents using Bayesian models

SKILLS, ACTIVITIES & LANGUAGES

Programming Languages	Machine Learning	Libraries & Platforms
Python Java C/C++ SQL	Data Analysis/Visualization, Feature Engineering, Dimensionality Reduction, Clustering, Neural Networks, CNN, MLP, LSTM, Time Series Analysis/Forecasting, ARIMA	Sklearn, Keras, TensorFlow, Pandas, NumPy, Matplotlib, Seaborn, Statsmodel, PySpark, Jupyter Notebook, GitHub

Activities: HPE Project Fair: Created a poster and presented my project in front of a jury. I was awarded the 3rd place.
Job Fair: Participated in organizing University job fair by reaching out to companies and managing the supply of custom products
Google Hashcode: Participated to the team-based competition. Gained experience in programming and team organization

Languages: English: Fluent, French: Native speaker