

Sofianos Lampropoulos

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PROFILE

I am a versatile Full Stack Engineer, Data Scientist, and researcher in AI/ML with hands-on experience in designing scalable solutions and developing predictive models. My background includes a strong foundation in Electrical and Computer Engineering, enriched with practical expertise in AI/ML. I excel in both theoretical and practical aspects of Data Science, making significant contributions to AI projects and business problem-solving.

- Machine Learning
- Data Engineering
- Deep Learning
- Project Management
- AI Integration
- Business Analysis
- Client Management
- Content Creation

EXPERIENCE

Junior Software Engineer

September 2023 – Present

Nexi Group, Kryoneri, Attiki, Greece

Nexi Group is a leading European PayTech company, operating in the payment industry.

Responsible for contributing to the codebase of the Card Management System "PowerCard". Engaged in business analysis and project management activities, ensuring alignment between business requirements and technical deliverables.

- Contributed to the codebase of the Card Management System "PowerCard"
- Trained over 50 employees on using "PowerCard" with dedicated sessions during the migration from the old CMS (Card Management System)
- Conducted business analysis and project management
- Gathered key business requirements and translated them into actionable insights
- Facilitated effective communication between stakeholders and technical teams
- Drafted comprehensive business requirement documents (BRDs)
- Utilized Agile and Kanban project management methodologies, using Trello
- Managed incident analysis at the ServiceNow platform as a Client Service Manager
- Trained over 50 employees in Nexi's Departments to use AI tools to facilitate their work
- Evaluated the business impact of AI integration within processes, creating several GPTs that improved efficiency in the Business Analysis and Client Service Department by 30 percent.

Data Engineer Intern

May 2022 – September 2022

Oliveex, Volos, Greece

Oliveex is a technology company specializing in IoT solutions for industrial applications.

Assisted in the design and implementation of database schemas, conducted exploratory data analysis, and developed machine learning models for sensor data.

- Helped with the design and implementation of database schema
- Conducted exploratory data analysis and descriptive statistics
- Performed feature engineering for enhanced model performance

- Developed machine learning models for time series prediction of sensor label data
- Applied deep learning techniques for outlier detection of sensor time series data anomalies using LSTM, LSTM Autoencoder, Isolation Forest, DBSCAN, and Interquantile Range
- Utilized Git as a version control and collaboration tool

EDUCATION

University of Thessaly, Greece

September 2018 - June 2023

5-year (Integrated M.Sc.)

GPA: 7.63/10

Department of Electrical and Computer Engineering

RESEARCH

University of Thessaly, Greece

September 2023 - Present

Department of Electrical and Computer Engineering

PhD in Subsequence-based Anomaly Detection using Deep Learning

- Developing advanced deep learning models for detecting anomalies in time series data
- Exploring subsequence-based techniques to improve anomaly detection accuracy
- Applying findings to real-world scenarios to enhance practical applications

ACHIEVEMENTS

Quality of Experience Prediction Trends for Live Video Streaming Events | *Deep Learning, Python*

- Pre-processing
- EDA Analysis, Perform data analysis to extract valuable insights from the data set
- Implementation of a deep learning architecture in order to accurately predict the quality of experience

Binary Classification Model for HEDNO Datathon Competition - Power Theft Detection | *Q-Learning, Python*

- Classified if a user is doing power theft or not using Q-learning
- Pre-processing of dataset, feature engineering, and feature selection
- Model evaluation and validation using performance metrics

Chat-bot Development for Event Management Industry | *ML & AI, Next.js*

- Utilized Retrieval-Augmented Generation (RAG) and fine-tuning techniques
- Conducted Exploratory Data Analysis (EDA), data pre-processing, and dimensionality reduction
- Elicited client requirements, decomposed them into actionable tasks, and managed the project budget using Agile-Scrum methodology
- Developed and fine-tuned deep learning models for improved performance
- Implemented and experimented with various large language models (LLMs) to determine the best performance.

Multiple Linear Regression Model of Energy Use in Appliances | *ML & AI, Python*

- Pre-processing (checking for NaN values, data type, correlation between the features)
- EDA Analysis (heatmap, pairplots)
- Principal Component Analysis and Multiple Regression Estimation using Gradient Boosting Regressor
- Recursive feature elimination (RFE) & Model Evaluation

Stock Market Trend prediction - Time Series Forecasting | *ML & AI, Python*

- Pre-processing (checking for NaN values, data type, correlation between the features)
- EDA Analysis (heatmap, pairplots)
- Sequential Regression Modeling
- LSTM usage and model evaluation

Natural Language Processing (NLP) for Sentiment Analysis | *ML & AI, Python*

- Collected Data using Web-scraping from Efood Restaurant Reviews
- EDA Analysis (Wordcloud, etc), Pre-processing (Remove stopwords, Normalizing, etc)

- ML Techniques including Logistic, SVM, Naive Bayes, k-NN, Decision Tree, Ridge
- Ensemble ML Techniques such as Random Forest, XGBoost
- Deep Learning Methods employing Multi-layer Perceptron Classifier (a Feedforward Neural Network)

Regression with a Deep Neural Network (DNN) using Keras | *ML & AI, Python*

- Utilizing *pima-indians-diabetes.data.csv* dataset
- EDA Analysis, Pre-processing and Dimensionality Reduction
- Deep Learning Techniques including DNN with MLP and Keras experimenting on various neural network architectures and hyperparameters

Crowdfunding Platform | *Introduction to Entrepreneurship*

- Financial Analysis, Incomes - Outcomes
- Business plan, Marketing plan, Analysis of business quarters)
- Competitive analysis
- Contact with a Financial Mentor

TECHNICAL SKILLS

Languages: Javascript, Python, SQL, Matlab, C, R, Golang, LaTeX, Excel

Developer Tools: Git, Anaconda Jupyter Notebook, VS Code, PyCharm, Google Colab

Business analysis tools :Jira, Trello, ServiceNow, Confluence

Libraries: Tensorflow-Keras, Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn,

SOFT SKILLS

- Time Management
- Teamwork
- Effective Communication
- Analytical Thinking
- Adaptability
- **Content Creation:** Created and managed the Greek YouTube / TikTok channel ”@generatedbyhumans focused on AI/ML. Produced educational content and simplified complex concepts for a broad audience. Using video editing, content strategy, and SEO techniques to enhance visibility and impact.

LANGUAGES

English: Fluent

Greek: Native