**Athanasios Stavropoulos**

# **Summary**

# Data Scientist serving as a technical expert for project teams throughout the implementation and maintenance of business and enterprise software solutions. Experience in personally developing, configuring, or modifying code modules, stable application systems, and integrated enterprise software solutions within various computing environments.

# **Technical Skills**

**Operating Systems**: Unix/Linux, Windows, Mac OS

**Programming**: Python (SciPy, Pandas, NumPy, Matplotlib, Scikit-learn, TensorFlow), SQL (MySQL, Microsoft SQL Server), C/C++, Matlab, R, Wolfram Mathematica, Fortran

**Software**: Microsoft Office, PowerBI, Tableau, ANTLR4

**Special Skills**: Computational Physics, Numerical Mathematics, Machine Learning, AI, Deep Learning, Data Analysis, Statistical Analysis, Cloud Computing, Database Architecture, Generative AI, Marketing

**Web Design**: CSS, HTML5, HTML, XML, JAVASCRIPT

**Other**: GIT, Agile, Jira

**Education**

* PH.D. IN Computational Physics, Georgia Institute of Technology, 2018
* M.S, Computational Physics, Aristotle University of Thessaloniki, 2012

# **Professional Experience**

**Wells Fargo Bank, Incident Prevention Group, Charlotte, NC January 2024 – Present**

**Lead Data Solutions Specialist**

* Led a project to design and implement a data selection and collection framework for machine learning and Gen AI algorithm development.
* Identified and curated relevant datasets to support predictive modeling of serious incident occurrences, ensuring data quality and integrity.
* Collaborated with cross-functional teams to define project goals, timelines, and deliverables.
* Worked on the creation of accurate predictive models, contributing to proactive risk management strategies.

**Bank of America, Corporate Center, EBDM Group, Charlotte, NC Aug 2023 – Dec 2023**

**Senior Data Architect**

* Application of statistical analysis on volumetric data transferred between applications within the bank.
* Application of Machine Learning and AI algorithms on Graph theory models, for the purpose of detecting anomalies in the communication of applications within the Bank.
* Application of computational mathematics methods on reconstructing volumetric signals between applications and prediction of future behavior.

**Wells Fargo Bank, Charlotte, NC February 2023 – August 2023**

**Senior Python Engineer**

* Develop and enhance code in Python and MySQL to support ETL (Extract, Transform, Load) processes concerning employee hire data.
* Automation of lineage data pipelines for daily and weekly usage.

**Lowe’s Home Improvement, Corporate Office, Charlotte, NC February 2020 – February 2023**

**Data Scientist / Software Developer**

* Application of statistical analysis, machine learning, deep learning and AI methods within Google Cloud Platform (GCP) infrastructure to predict the behavior of online customers and personalize their experience (Personalization).
* Application of machine learning models to classify unregistered customers. Creation of a customer ID database for unregistered customers based on customer behavior and their digital fingerprint.
* Development of a rule based model used to predict the re-purchase of periodically replaceable products and application of machine learning classification techniques within this model to promote similar products.
* Develop, enhance and maintain efficient, testable and reusable code to automate collection, analysis and visualization of web traffic data.

**Bank of America, Corporate Center, GRA Group, Charlotte, NC Feb 2018 – Feb 2020**

**Applications / Software Developer**

* Develop, enhance and maintain efficient, testable and reusable code to automate collection, analysis and visualization of model data.
* Collaborate with other software developers to enhance existing processes in Python and SQL to support data usage requirements.
* Develop, enhance, and maintain a Python based internal website and workflows to support reviewing and approving model data usage.
* Design and implement a solution to automate collection, analysis, and visualization of model data.
* Parsing code written in various database management and programming languages.
* Collaborate with other software developers to enhance existing processes in Python, ANTLR4 and C++ to support data usage requirements.
* Translation and enhancement of existing code from Matlab to Python.

**Graduate Research and Teaching Assistant Atlanta, GA**

**Georgia Institute of Technology, Center For Relativistic Astrophysics 2013 – 2018**

* Research: Computational astrophysics and numerical general relativity.
* Writing and maintaining code in C/C++, Python, Matlab and Wolfram Mathematica.
* Developing and performing small and large scale computer simulations using the C and C++ programming languages.
* Develop, enhance, and maintain a Python based internal website and workflows to support reviewing and approving model data usage.
* Mathematical analysis and graphical visualization of large data sets using Matlab, Python, Vislt and Wolfram Mathematica.
* Working with the Einstein Toolkit, a community-driven software platform of computational tools for research in relativistic astrophysics.
* Teaching and supervising undergraduate physics labs and programming courses as a graduate teaching assistant.
* Web-page designing using CSS, HTML and XML.
* Machine Learning and Artificial Intelligence.

**Graduate Student Thessaloniki, Greece**

**Department Of Physics And Computer Sciences, UNIVERSITY OF THESSALONIKI 2009 – 2012**

* Research: Computational study of stochastically perturbed dynamical systems.
* Experience in using various programming languages to present, solve and visualize physics related problems.