ALI SEYFI

Senior Machine Learning Engineer at Oracle

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SUMMARY

- **5+ years of experience** in Machine Learning, Software Development, MLOps, and Research
- **Expertise in Time Series Forecasting**, AutoML, and Model Explainability, and Generative Models
- Strong background in statistical analysis, data querying, and problem-solving using Python, R, and SQL
- Proven track record in leading projects and teams, resulting in several patents and a publication at **NeurIPS**
- Experienced in designing and evaluating models for solving complex business and product problems
- **HIGHLIGHTED SKILLS:** Python, R, SQL, C, C++, Java, PyTorch, TensorFlow, Linux

WORK EXPERIENCE

Oracle Labs

Senior Machine Learning Engineer

Sep 2023 – Present

- Led a team of 8 in the Oracle Cloud Enterprise Performance Management's (EPM) **cash flow forecasting** pipeline project
- Collaborated with different teams to identify business problems and develop scalable solutions using advanced statistical models
- Developed a modular next-generation of AutoMLx package to **increase scalability and performance**
- Published 4 patents enhancing AutoML, including innovations in automated feature engineering, and adaptive hyperparameter tuning

Machine Learning Engineer

Aug 2022 – Sep 2023

- Enhanced and developed new functionalities to Oracle AutoMLx in order to **enhance Oracle Cloud customers' satisfaction**
- Implemented a new set of comprehensive unit, integration, and benchmarking tests to **cover 100%** of the code-base
- Mentored 5 interns from Canada, US, Switzerland, and Morocco; **received recognition as the "Mentor of the Year"**
- Collaborated with various teams in Oracle Cloud, such as Enterprise Performance Management, and Data Science Service

Research Associate

May 2021 – July 2022

- Researched and developed a new model explainer based on SHAP values which **reduced the running time by 40%**
- Applied rigorous statistical methods to evaluate model performance and ensure robustness of explanations
- Submitted a patent to the World Intellectual Property Organization as the first author

University of British Columbia

Research Assistant

May 2021 – Aug 2022

- Designed and implemented a novel method for multivariate time series generation surpassing state-of-the-art models
- Published findings at NeurIPS, highlighting the method's superior accuracy and robustness for multivariate time series generation

Max Planck Institute for Dynamics of Complex Technical System

Research Assistant

Jul 2019 - Sep 2019

- Developed a state-of-the-art model order reduction algorithm using MATLAB to **reduce the running time** and **increase scalability**

PUBLICATIONS

Generating multivariate time series with COmmon Source CoordInated GAN (COSCI-GAN) | NeurIPS

- Ali Seyfi, Jean-Francois Rajotte, Raymond T. Ng, NeurIPS, New Orleans, 2022 | link to the paper

EDUCATION

University of British Columbia | M.Sc. Computer Science

Sep 2020 – Jul 2022

- Thesis: Synthesizing multivariate time series using Generative Adversarial Networks with a Central Discriminator link to thesis

Sharif University of Technology | B.Sc. Electrical Engineering and B.Sc. Computer Science

Sep 2015 – Jun 2020

- Thesis: Intelligent Dynamical Networks: Physarum Polycephalum Structure Analysis