

Siavash (Saeed) Kazemi

Resume

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Summary

- Master of Electrical Engineering from UNB with over 10 years of experience in data science and related fields.
- Strong foundation in machine learning and computer science principles
- Experience in developing and implementing machine learning and deep learning models
- Proficient in programming in Python and experience with popular libraries such as TensorFlow, Pandas, and scikit-learn
- Experience in data preprocessing, feature selection, model evaluation and cloud computing

Technical Skills

Advanced Git, Python, Pandas, TensorFlow, Scikit-learn, OpenCV, Altium
Intermediate VHDL, L^AT_EX, Matlab, C/C++, Linux, Adobe Photoshop

Soft Skills

Strong Analytical, Teamwork, Highly Organized, Adaptability, Problem-solving, Time Management, Eager Learner.

Related Work Experience

- 2024- to Present **Data Scientist**, *FIDDLEHEAD TECHNOLOGY*, Moncton, NB, Canada.
○ Collaborated on developing an optimization solution as part of a team.
○ Leveraged solvers like Gurobi and Google OR-Tools.
○ Improved algorithm performance to enhance solution efficiency.
- 2023- 2024 **Research Assistant**, *UNIVERSITY OF NEW BRUNSWICK*, Fredericton, NB, Canada.
○ Contributed to data validation and quality assurance in a large-scale dataset.
- 2020-2023 **Research Assistant**, *UNIVERSITY OF NEW BRUNSWICK*, Fredericton, NB, Canada.
○ Worked as part of a team on a federally funded, multi-partner project to develop the world's first pressure-based gait biometric system
○ Utilized various techniques such as pre-processing, feature extraction, and hyper-parameters optimization to enhance the performance of the models
○ Implemented deep neural networks, including CNN, 1DCNN, and transfer learning techniques
○ Experience in working with Keras, Tensorflow, and scikit-learn libraries to build ML/DL models

- 2017-2019 **IT Support Specialist**, *MOEIN RAH GOSTAR KHOASAN COMPANY*, Mashhad, Iran.
- Train and supervise technical and non-technical staff
 - Provide guidance for purchasing of computer hardware, software, and supplies
- 2015-2017 **Electronic Engineer**, *SALMANIAN FARS CORPORATION*, Imam Khomeini highway, Isfahan, Iran.
- Designed and verified PCBs.
 - Worked with a variety of sensors and actuators.
 - Experienced in electronic design and integration.
- 2022-2023 **Teaching Assistant**, *UNIVERSITY OF NEW BRUNSWICK*, (1) Embedded System, and (2) Signals and Systems.

Selected Projects

- 2021 Implementing several approaches for time series classification as the project of "*Time Series Analysis*" course under the supervision of *Prof. Erik Scheme*.
- 2021 Implementing five ML algorithm as the project of "*Machine Learning and Data Mining*" course under supervision of *Prof. Huajie Zhang*.
- 2020 Comparing five algorithms for image registration as the project of "*Digital Image Processing*" course under the supervision of *Prof. Julian Meng*.
- 2014-2015 Doing research on Real-time target tracking algorithm based on machine vision for *Complex Research of Etebari*, located inside Isfahan University of Technology.

Educational Background

- 2023 **Master of Science in Electrical Engineering**, University of New Brunswick, Canada, **Courses:** *Machine Learning & data Mining, Digital Image Processing, Intro to Pattern Recognition, Digital Signal Processing, Time Series Analysis*, GPA – A+.
- Title of Thesis:** *Exploring Performance Limits for Pressure-Based Gait Biometrics*
- 2014 **Master of Science in Communication**, Isfahan University of Technology, Iran.
- Title of Thesis:** *An Efficient Algorithm for Still and Moving Object Registration in Moving Video Camera Sequences*
- 2010 **Bachelor of Science in Electronics Engineering Technology**, Shahid Rajaei Teacher Training University, Tehran, Iran.
- Title of Thesis:** *Neural Network implementation by NEFPROX in order to approximate nonlinear function to use in medical applications*

Professional Certificate

Databricks Machine Learning Associate, certification by Databricks, [Credential Link](#).

DP-100: Azure Data Scientist Associate, certification by Microsoft, [Credential Link](#).

Watsonx Agentic AI Bootcamp – Level 2, certification by IBM, [Credential Link](#).

Databricks Accredited Azure Platform Architect, accreditation by Databricks, [Credential Link](#).

Machine Learning, online course by Standford University on coursera.org, Instructor: Professor Andrew Ng, [Credential Link](#).

Deep Learning, a 5-course specialization on coursera.org, Instructor: Professor Andrew Ng, [Credential Link](#).

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| (1) Neural Networks and Deep Learning | (4) Convolutional Neural Networks |
| (2) Structuring Machine Learning Projects | (5) Sequence Models |
| (3) Hyperparameter tuning, Regularization & Optimization | |

Introduction to Data Science in Python, online course by University of Michigan on coursera.org, [Credential Link](#).

Publications

- 2025 Larracy, R., Phinyomark, A., Salehi, A., MacDonald, E., **Kazemi, S.**, Bashar, S.S., Tabor, A. and Scheme, E., „A DATASET OF HIGH-RESOLUTION PLANTAR PRESSURES FOR GAIT ANALYSIS ACROSS VARYING FOOTWEAR AND WALKING SPEEDS, Scientific Data. 2025 Aug 13;12(1):1415.
- 2023 **Kazemi, S.**, Phinyomark, A., Scheme, E., SAMPLE SIZE IN FLOOR SENSOR-BASED GAIT RECOGNITION FOR SMART HOME AND ACCESS CONTROL SCENARIOS, 2023 IEEE Sensors Applications Symposium, Ottawa, Canada, Jul 18-20, 2023.
- 2018 **S. Kazemi** and M. R. Ahmadzadeh, DPML-RISK: AN EFFICIENT ALGORITHM FOR IMAGE REGISTRATION, International Journal of Engineering (IJE), In Press.
- 2016 **Saeed Kazemi** and M. R. Ahmadzadeh, PROVIDE EFFICIENT ALGORITHMS FOR MATCHING IMAGES BASE ON BRISK AND DIRECTIONAL PATTERN, journal of Iranian society of machine vision and image processing (in Farsi).

Volunteer Work

- 2021-2022 **Executive member**, IRANIAN CANADIAN ASSOCIATION OF NEW BRUNSWICK.
 - Event planning and organizing for around 100 people
 - Helping new international students and immigrants settle in New Brunswick