Amin Rabinia

M.S. in Computer Science
Machine Learning Engineer

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SKILLS

Python, TensorFlow, Keras, AWS, SageMaker, Java,
JSP, ASP.Net, C, C++, C#, OOP, SQL, Prolog, Html

EXPERIENCE

Machine Learning Engineer: Deep Learning for Forest Maps

Department of Wildlife and Conservation Biology, University of Maine, Orono, ME — Jan. 2021 - PRESENT

Design and develop deep learning models for object detection and image segmentation.

Graduate Research and Teaching

University of Maine, Orono, ME — Sep. 2018 - Dec. 2020

Texas Tech University, Lubbock, TX — Sep. 2016 - Sep. 2018

Researcher in Privacy Engineering and NLP. Instructor, Lab Supervisor and Teaching Assistant: C, Python, First-order Logic, Calculus, C++, Data Structures.

Software Engineer

Kooy Co., Tehran — Jan. 2014 - June 2016

Soofar Co., Tehran — Jan. 2009 - Aug. 2010

Designed and implemented web and desktop applications for small businesses and organizations; Research and Development in the IT department.

EDUCATION

M.S. in **Computer Science**, *University of Maine*, Orono, ME — Dec. 2020
Courses: Computer Vision, Scientific Modeling, Deep Learning, Statistical Foundation of Data Science.

M.A. in **Philosophy**, *Texas Tech University*, Lubbock, TX — Sep. 2018

Thesis subject: Privacy in Information Technology
Courses: Intelligent Systems, Privacy Engineering, Big Data Analytics, Theories of Automata.

M.A. in **Tech. Management-Phil. of Science**, *AmirKabir University*, Tehran — Sep. 2013

B.S. in **Computer Software Engineering**, *Shahab Danesh University*, Qom — Sep. 2011

A.S. in **Computer Software**, *Enghelab Technical College*, Tehran — Dec. 2008

ACADEMIC CERTIFICATIONS

Amazon Web Services Machine Learning Essential Training, LinkedIn Learning — Dec. 2020

Neural Networks and Deep Learning, Deeplearning.ai — June 2020

Natural Language Processing in TensorFlow, Coursera — May 2020

Sequences, Time Series and Prediction, Coursera — May 2020

PROFESSIONAL AND ACADEMIC ACCOMPLISHMENTS

Graduate Student Employee of the Year 2018-2019, University of Maine.

2019 Winter Grant Writing Workshop, University of Maine.

SELECTED PROJECTS

Image Segmentation for Studying Forest Health — PRESENT
Design and develop deep learning models, computer vision algorithms and image processing methods for image segmentation on forest maps. Frameworks used such as OpenCV and PixelLib.

Natural Language Inference on Regulations and Privacy Policies — Nov. 2019
Utilized TensorFlow (Keras) to implement a Natural Language Inference (NLI) model that automatically detects any inconsistency between legal requirements and android app's privacy policies.

Stance Detection on #BLM Tweets — May 2020

Improving the performance of stance detection systems by extending BERT models. The code collectes the #BLM data from Twitter to analyze and classify relevant tweets using stance detection technology.

Image Captioning with InceptionV3 — Oct. 2020

A combinatory pipeline for object detection and text generation to create a short description of a given picture (Flicker Dataset). This project integrates the InceptionV3 model with an RNN model for object detection and caption generation.

Sentiment Analysis of #COVID Tweets — Nov. 2020

Utilized SVM, KNN and random forest classifiers to perform sentiment analysis of COVID related tweets.

PEER REVIEWED PAPERS

A Methodology for the Formal Legal-GRL: A Research Preview, Requirements Engineering for Software Quality: 26th International Working Conference, REFSQ 2020, Pisa, Italy, Proceedings. Vol. 12045. Springer Nature, 2020.

The FOL-based Legal-GRL: Towards an Automated Goal Modeling Approach for Regulations, IEEE 8th International Model-Driven Requirements Engineering Workshop (MoDRE), Banff, Canada, 2018.

FOL Approach for Improving Legal-GRL: A Case for Requirements Engineering of Legal Regulations of Social Media, IEEE 25th International Requirements Engineering Conference (REW), Lisbon, 2017.

Creating an Ontology for Family Diseases Prognosis, The 2017 World Congress in Computer Science, Computer Engineering, & Applied Computing (CSCE 2017), Las Vegas, 2017.

INVITED TALKS AND POSTERS

Integrating the FLG Framework with the NLP Combinatory Framework, PAL: Privacy-Enhancing Artificial Intelligence and Language Technologies, AAAI Spring Symposium, 2019, Stanford University, CA.

Contextual Integrity and Reasonable Expectations: A Privacy Paradigm, The 2nd annual Symposium on Applications of Contextual Integrity 2019, at UC Berkeley, CA.

Respect for Norms and Expectations: A Privacy Paradigm for IT Businesses, The Fifteenth Symposium on Usable Privacy and Security (SOUPS 2019), Santa Clara, CA.

INVITED REVIEW AND REFEREE PARTICIPATIONS

International Conference on Requirements Engineering (RE 2020) (RE 2019) (RE 2018).

38th International Conference on Conceptual Modeling (ER 2019).

16th International Conference on Formal Aspects of Component Software (FACS 2019).

The ACM Symposium On Applied Computing (SAC 2019) (SAC 2018).

24th International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ 2018).