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George Mihaila
Data Science | Machine Learning | Software Engineer

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PROFESSIONAL EXPERIENCE

State Farm

Data Scientist, Intern — *May 2020 – Jul 2020*
- Created a proof of concept (POC) application for stock portfolio optimization using Reinforcement Learning (RL) in Python.
- Built a RL framework tool that makes it transferable in different business areas to help create RL environments and models.
- Helped create a POC application that optimizes claims automatic payment process using RL in Python.

Machine Learning Engineer, Intern — *May 2019 – Jul 2019*
- Automated modeling evaluation in python that can build and train baseline models and compare them against a target model that can help reduce deployment timeline by 90%.
- Wrote and published a python package for automatic model evaluation that can be used across different departments.
- Built python program that generates a HTML report showing evaluation and data analysis plots of the baseline model that can be integrated in a CI/CD pipeline.

Data Scientist, Intern — *May 2018 – Aug 2018*
- Used Natural Language Process (NLP) tools in python to extract meaningful features from claims text data that were used in addition to existing claims feature to increase model baseline performance in predicting claims duration.
- Created a tutorial on how to use to GPU to greatly reduce DL models training time in python.
- Built an Optical Character Recognition DL model from scratch using python. Learned how to use bi-directional recurrent neural networks along with a custom loss function and developed a training strategy that produced high accuracy.

University of North Texas

Data Scientist — *Sep 2018 – May 2020*
- Provided data science and Machine Learning (ML) consultation for multiple research labs in Computer Science to help with efforts such as implementing research papers and troubleshooting Deep Learning (DL) models in Python.
- Helped maintain latest ML and DL frameworks for University of North Texas (UNT) High Performance Computing (HPC).
- Created workshops and tutorials that teaches UNT professors and students in the research area how to use cloud computing HPC services: build and train large DL models on multiple compute nodes with big data.

Teaching Assistant — *Sep 2017 – May 2018, Sep 2020 – Present*
- Building and debugging C/C++ coding assignments and help coordinate coding exams.
- Peer mentor and grader for students in Computer Science basic and advance courses.

Machine Learning Researcher — *Jan 2017 – Present*
- Implement concepts in python from research papers related to NLP with focus on text generative models.
- Building state of the art DL models in python to generate casual dialogue conversation that can mimic a persona.
- Dealing with large dialogue data from movies and TV series. Using most common characters as target personas for training.

EDUCATION

University of North Texas

- **Doctor of Philosophy (PhD) in Computer Science** — *Dec 2021*
  Research Areas: Machine Learning, Deep Learning, NLP, Dialogue Generation, Chatbots.
- **Master of Computer Science** — *Dec 2019*
  Relevant Coursework: Machine Learning, Deep Learning, Big Data, NLP, Information Retrieval, Pattern Recognition, Computer Vision.

SKILLS

Proficient	Need warmup proficient	Intermediate
Python, Tensorflow, PyTorch	Java, C, C++, Matlab, R	SQL, Docker, AWS, Swift, Android, Hadoop, HTML