#### TRYAMBAK KAUSHIK, PhD

# SOFTWARE & SKILLS

Python: Machine Learning (sci-kit learn), Deep learning (Pytorch), visualization (Plotly),

knowledge graphs, topic modeling

**R:** Machine learning, statistics, visualization (ggplot) **Cloud Services:** AWS Sagemaker, AZURE, GCP, etc

Miscellaneous: C, C++, Julia, SQL, NoSQL, Project Management, Product management, etc.

# DATA SCIENCE PORTFOLIO

### Semi-supervised learning with GANs

(https://www.kdnuggets.com/2020/01/semi-supervised-learning-generative-adversarial-networks.html)

- Implemented SGANs in Pytorch
- Achieved a prediction accuracy of 98% for a 50% poorly labelled or unlabeled dataset

# **Predicting Stock market trading**

(https://aisc.ai.science/super-blog/rl-2019)

- Implemented reinforcement learning actor-critic policy in Pytorch
- Compared performance of deep learning models such as RNN, attention and transformer models

# **Recommender System using transformers**

(https://docs.google.com/document/d/15Y05HjXij8swYfayRBQeK9EL4BkUN5Jp\_9IXkkaQ97E/edit#)

- Critical review paper on BERT4Recsys recommendation system
- Strength and weakness of implementing transformer architecture for recommendation systems

#### PROFESSIONAL EXPERIENCE

Engineer	March 2018 – contd.
Arcadis Canada Inc., Richmond Hill, ON, Canada	
Senior Design Engineer	Aug. 2016 – March 2018
Infrastructure Technologies, NOIDA, India	
Technical Professional	Feb. 2015 – June 2016
Wood plc, Charlotte, NC, USA	
Research Assistant	Jan. 2014 – Jan. 2015
The University of North Carolina, Charlotte, NC, USA	
Research Assistant	Aug. 2009 – Dec. 2013
Michigan State University, East Lansing, MI, USA	
Assistant Manager	July 2007 – Aug. 2009
Ircon International Ltd., Kuala Lumpur, Malaysia	

#### **EDUCATION**

Ph.D., Civil Engineering, Michigan State University, East Lansing, Michigan, USA (August 2014) M.S., Civil Engineering, Michigan State University, East Lansing, Michigan, USA (May 2013) M.Tech., Civil Engineering, Indian Institute of Technology, New Delhi, India (May 2007) B.Tech., Civil Engineering, National Institute of Technology, West Bengal, India (May 2005)