NILESH GUPTA

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EXPERIENCE

Data Scientist

Goldman Sachs

1/13–P, 5/2019–8/2019 New York City, NY

- Leveraged ElasticSearch to analyze and investigate usage patterns in Goldman Sachs risk portal
- Found and stored code vulnerabilities into MongoDB through multi-threaded approach of using regular expressions as pattern matching technique

Course Assistant for CS357-Numerical Methods

University of Illinois, Urbana-Champaign

Aug. 2018 – Dec. 2018 Champaign, IL

- Led discussion section for honors students and conducted office hours for a deeper dive into theoretical concepts discussed in lecture

Computer Science Intern

Aptiv

June 2018 – Aug. 2018 Mountain View, CA

- Used fused track data (Radar and LIDAR) from autonomous vehicle to visualize the surrounding environment through C# and Unity.

Software Engineer Intern

Capital One

Sept. 2017 – May 2018 Champaign, IL

- Detected fraudulent credit card applications using logistic regression for anomaly detection
- Migrated data from IBM DB2 databases to Amazon S3

TECHNICAL SKILLS

Python, C++, Java, R
PyTorch, Julia, C#, C, SQL

RELEVANT COURSEWORK

- CS: Artificial Intelligence, Numerical Methods, Computer Architecture, Databases, Data Structures, Systems Programming, Algorithms, Programming Studio, Compilers
- Statistics: Applied Statistics, Statistical Programming, R Programming for Data Science, Statistical Computing
- Mathematics: Calculus 3, Linear Algebra, Real Analysis
- Informatics: Data Science Foundations, Advanced Data Science

ACADEMIC PEDIGREE

M.S. Computer Science

Northwestern University

2022 Evanston, IL

B.S. Computer Science & Statistics

University of Illinois, Urbana-Champaign

December 2019 Champaign, IL

- GPA: 3.84

PROJECTS

People as Sensors Control

- Working with Professor Driggs-Campbell to identify scenario where pedestrian may cross street where pedestrian is occluded from vision of autonomous vehicle
- Building partially observable Markov decision process model to take advantage of other agent's actions to infer the presence of a pedestrian despite occlusion.

Energy Disaggregation via Adaptive Filtering

- Worked with UC Berkeley research group to respond to the earth's rising temperature with a goal of reducing energy consumption
- Produced prior models on the behavior of appliances to select the most probable appliance consumption behavior based on previously observed behavior from a dataset

Imitation Learning/Behavioral Cloning

- Worked with Professor Driggs-Campbell to write DAgger algorithm using a neural network that allows an AI kart to drive like a human (imitation) and complete any track

NCAA Scout

- Built website to let users invest currency in NCAA basketball based on NBA growth potential with features including predictions, found through a neural network, for most promising players.

PATENTS & PUBLICATIONS

- Energy Disaggregation via Adapative Filtering pending publication to ACM Transactions on Intelligent Systems and Technology
- Vehicle System and Method for Steep Slope Pick-Up and Drop-Off Site Avoidance published to European Patent Office