

SACHIN MUKUL DHARASHIVKAR

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EDUCATION:

- Master of Science in Computer Science, University of Massachusetts Amherst. 2016 – 2018
Courses : Machine Learning, Deep Learning, Reinforcement Learning, Advanced Natural Language Processing, Secured Distributed Systems, Systems, Advanced Algorithms.

WORK EXPERIENCE:

- Software Research Engineer, Huawei Technologies Fall 2017
Tasks : Development of Deep Reinforcement Learning algorithms for continuous control task.
- Machine Learning – Software Development Intern, Autodesk Summer 2017
Tasks : Domain Understanding, Problem Formulation, End-to-End Model Development
- Co-Founder/Data Scientist, DeepAnalytics 2015 – 2016
Tasks : Lead Generation, Client Interaction, Domain Understanding, Product Development
- Software Engineer/Data Scientist, Persistent Systems 2013 – 2015
Tasks : Data Cleansing, Exploratory Data Analysis, Predictive Model Development

PROJECT PROFILE:

- **Doom - Agent:**
Developed a Deep Reinforcement Learning Agent, A3C(Pixels to Actions) in Torch7 to play on different tasks in the ViZDoom environment (First- person shooter game – Doom). [Code](#)
- **Attention Networks for Question Answering :**
Studied various Attention Network architectures for the reading comprehension task and implemented Dynamic Coattention Network. Dataset : SQuAD [Code](#)
- **Consumer Insight 365:**
Developed predictive models to identify age band and gender of the user from anonymized cell phone usage history for targeted advertising.
- **Robust Agent :**
Explored the sensitivity of various Deep Reinforcement Learning agents (DQN, A3C & TRPO) against adversarial attacks generated by FGSM and tried to develop a robust agent against them.
- **Policy Gradient Coagent Networks :**
Implemented and experimented with an actor-critic algorithm with increased biological plausibility, where actors comprise of set of interactive modules with a common critic.
- **AutoDimension:**
Worked on developing generative models for generating dimensions in architectural views.
- **Category Embeddings:**
Developed categorical embeddings for architectural concepts from buildings corpora.
- **Group Chat Application:**
Designed and implemented distributed group chat application (end-to-end encryption) in Go.
- **Memory Allocator** (stack-based) in Rust for Rust.

TECHNICAL SKILLS:

- **Primary:** C, C++, Python, Lua (Torch), Rust
- **Secondary:** R, Java, Go, SQL, SPSS, Predictive Analytics Library (PAL) in SAP HANA