Rishub Jain

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EDUCATION

Carnegie Mellon University

BS in **Computer Science**
Minor in **Machine Learning**
May 2018 | GPA: 3.97/4.0

Masters in **Machine Learning**
Expected **May 2019**

Thomas Jefferson High School for Science & Technology (TJHSST)

Grad. June 2015 | GPA: 4.4/4.0

COURSEWORK

Undergraduate

- Machine Learning (PhD) [10-701]
- Machine Learning [10-601]
- Deep Learning [10-707]
- Deep Reinforcement Learning & Control [10-703]
- Language Grounding to Vision & Control [10-808]
- Practical Data Science [15-388]
- Artificial Intelligence [15-381]
- Modern Regression [15-401]
- Statistical Inference [36-226]
- Probability Theory [36-217]
- Matrix Algebra [21-241]

- Parallel Computer Architecture and Programming [15-418]
- Algorithm Design and Analysis [15-451]
- Great Theoretical Ideas [15-251]
- Computer Systems [15-213]
- Parallel and Sequential Data Structures and Algorithms [15-210]
- Functional Programming [15-150]
- Complexity Theory [15-455]

High School

- Multivariable Calculus
- Complex Analysis
- Differential Equations
- Robotics

SKILLS

Python • Java • C • C++
R • Matlab • Javascript • SML
Tensorflow • Keras • scikit-learn

Deep Learning • Computer Vision • NLP

EXPERIENCE

Uber Advanced Technologies Group

Software Engineering Intern | Summer 2018 | Pittsburgh, PA

- Will be on the Prediction team working on developing ML models for the car

Apple

Software Engineering Intern | Summer 2017 | Cupertino, CA

- Improved the chip design process using machine learning

Carnegie Mellon University

Research Assistant | Spring 2017 - Present | Pittsburgh, PA

- Developed models for disease diagnosis given clinical records of patient
- Captioned medical images with limited data
- Learning opponents' strategies in Robot Soccer using imitation learning

Disney Research

Research Assistant | Spring & Fall 2016 | Pittsburgh, PA

- Developed machine learning models to predict real-time engagement levels
- Developed a tree-based conversational robot by learning to reuse dialog

Bloomberg LP

Software Engineering Intern | Summer 2016 | New York, NY

- Developed platform for real-time client-side debugging

National Institutes of Health

Software Engineering Intern | Summer 2015 | Bethesda, MD

- Generated atomic resolution reconstructions of proteins using cryo-EM

U.S. Army Research Laboratory

Software Eng. Intern | Summer 2014 | Aberdeen Proving Ground, MD

- Developed a two-way converter between 3D geometry formats

NASA

Software Eng. Intern | Summer 2013 | Goddard Space Flight Center, MD

- Transformed the raw satellite images into usable and accurate formats

PUBLICATIONS

- J. Kennedy, I. Leite, A. Pereira, M. Sun, B. Li, **R. Jain**, R. Cheng, E. Pincus, E. Carter, and J. Lehman. Learning and reusing dialog for repeated interactions with a situated social agent. In *Proceedings of the International Conference on Intelligent Virtual Agents*, 2017
- N. Sadoughi, A. Pereira, **R. Jain**, I. Leite, and J. Lehman. Creating prosodic synchrony for a robot co-player in a speech-controlled game for children. In *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction*, 2017

PROJECTS

2017	Feature Flow for Frame Interpolation	10-707 Project
2017	Autonomous Object Translation from Language	10-808 Project
2017	Skill Trees for Hierarchal Reinforcement Learning	10-703 Project
2017	RL-based AI for Breakout and Tetris	15-381 Project
2016	Predicting and Analyzing Crime in Pittsburgh	15-388 Project
2016	Organic Compound Identifier using CV (OCalc)	AT&T Hackathon
2016	Real Time Pool Game Helper using CV	Build18
2015	Luggage Recognition using CV	Research Project

AWARDS

2017	Best Technical Paper in ACM/IEEE HRI 2017
2016	1st Place in AT&T Mobile App Hackathon (OCalc)
2014	Eagle Scout Award
2013	1st Place in Intern Presentation Contest at NASA Goddard