Rishub Jain

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EDUCATION

CARNEGIE MELLON UNIVERSITY

BS in Computer Science
Minor in Machine Learning
May 2018 | GPA: 3.96/4.0
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]
- Introduction to Statistical Inference [36-226]
- Probability Theory [36-217]
- Algorithm Design and Analysis [15-451]
- Great Theoretical Ideas in CS [15-251]
- Computer Systems [15-213]
- Parallel and Sequential Data Structures and Algorithms [15-210]
- Functional Programming [15-150]
- Complexity Theory [15-455]
- Concepts of Mathematics [21-127]
- Matrix Algebra [21-241]

(†: in progress)

HIGH SCHOOL

- Multivariable Calculus
- Complex Analysis
- Differential Equations
- Robotics

SKILLS

Python • Java • C/C++ • Javascript • SML • bash • R • Matlab• SQL
Tensorflow • scikit-learn • numpy
Deep Learning • Computer Vision • NLP

EXPERIENCE

APPLE

Software Engineering Intern | Summer 2017 | Cupertino, CA

- Improved chip design process with machine learning

CMU/PETUUM

Research Assistant | Spring 2017 | Pittsburgh, PA

- Developed machine learning models for disease diagnosis
- Captioned medical images with limited data

DISNEY RESEARCH

Research Assistant | Spring & Fall 2016 | Pittsburgh, PA

- Developed crowd-sourced conversational robot
- Developed machine learning models to predict engagement levels of kids in real-time using visual and audio features

BLOOMBERG LP

Software Engineering Intern | Summer 2016 | New York, NY

- Designed and implemented entire platform for developers to remotely change users' settings and controls in real-time for debugging purposes

NATIONAL INSTITUTES OF HEALTH

Software Engineering Intern | Summer 2015 | Bethesda, MD

- Generated atomic resolution reconstructions of proteins using cryo-EM
- Developed image processing algorithms for detecting aggregate particles, and performance optimizations

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	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
2014-15	Luggage Recognition using CV	Research Project
2016	Integrated Scheduler and Meeting Website	TartanHacks
2015	Group Organizer and Meeting Website (MapIO)	HackCMU

AWARDS

2017	Best Technical Paper in ACM 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