Rishub Jain

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EDUCATION

CARNEGIE MELLON UNIVERSITY
BS in Computer Science
Minor in Machine Learning
Expected 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]
- Practical Data Science [15-388]
- Artificial Intelligence [15-381]
- Parallel Computing[†] [15-418]
- Algorithm Design and Analysis [15-451]
- Great Theoretical Ideas in CS [15-251]
- Introduction to Statistical Inference [36-226]
- Probability Theory [36-217]
- 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 • Matlab• SQL• HTML/CSS
Tensorflow • scikit-learn • numpy
Git • SVN • Perforce
Deep Learning • Computer Vision • NLP

EXPERIENCE

APPLE | Software Engineering Intern
Summer 2017 | Cupertino, CA

- Improving chip design process with machine learning

CMU/PETUUM | Research Assistant
Spring 2017 | Pittsburgh, PA

- Developed machine learning models for disease diagnosis
- Captioned medical images

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

NIH | Computational Biology 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 Engineering 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
2016	Pittsburgh Crime Analysis	15-388 Project
2016	Organic Compound Identifier using CV (OCalc)	AT&T Hackathon
2016	Integrated Scheduler and Meeting Website	TartanHacks
2016	Real Time Pool Game Helper using CV	Build18
2015	Group Organizer and Meeting Website (MapIO)	HackCMU
2014-15	Luggage Recognition using CV	Research Project

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