

AISHWARYA POTHULA

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SUMMARY

Research Interests: Developmental Robotics, Reinforcement Learning

I am third year PhD student working on developing a Simulated Environment for Developmental Robotics (SEDRo) that supports the testing and development of agents that can learn in human-like ways. More specifically, I am working on replicating experiments from the field of developmental psychology in SEDRo to test the developmental progress of non-verbal agents. The environment is being designed to support agents similar in capabilities to that of a 1-year old human infant. I am looking to collaborate with researchers that can help me identify suitable experiments from developmental psychology that can be replicated to evaluate non-verbal agents.

SKILLS

- Unity 3D Game development platform
- Programming Languages: C, C++, Java, Python
- Frameworks and Libraries: NumPy, SciPy
- Machine Learning Libraries: TensorFlow, Keras, PyTorch, OpenCV

PAPERS

- A. Pothula, M. A. Rubel Mondol, S. Narasimhan, S. M. Islam and D. Park, "**SEDRo: A Simulated Environment for Developmental Robotics**," Extended Summary in *2020 Joint IEEE 10th ICDL- EpiRob*
- Mondol, M.A., Pothula, A., & Park, D, "**Modeling Social Interaction for Baby in Simulated Environment for Developmental Robotics**," BabyMind Workshop, NIPS 2020
- Islam, S.M., Mondol, M.A., Pothula, A., & Park, "**An Open-World Simulated Environment for Developmental Robotics**," Learning in Artificial Open Worlds workshop ICML 2020

EXPERIENCE

01/2019 to Current

Computer Science PhD Student

University Of Texas At Arlington

- Working in the Human Data Interaction Lab (HDILab), UTA, with Dr.Deokgun Park.
- Working on developing a Simulated Environment for Developmental Robotics (SEDRo) that supports the testing and development of agents that can learn in human-like ways.
- More specifically, working on replicating experiments from developmental psychology in SEDRo.
- 4.0 GPA.

01/2020 to Current

Graduate Teaching Assistant

University Of Texas At Arlington

- Worked as a GTA for Operating Systems, Object Oriented Programming and Computer Architecture, Discrete Mathematics.
- As part of the job, I graded deliverables, held office hours and helped explain concepts to the students when they had questions., Published a paper "Simulated Environment for Developmental Robotics" in IEEE ICDL 2020.

01/2017 to 01/2019

Machine Learning Engineer

Caravel.AI – Hyderabad, India, India

- Exploratory Data Analysis, Data Cleaning, and creating model prototypes.
- Research and testing for 'Noungraph,' a platform that utilizes machine learning in pattern recognition and report generation from database records.
- Developed and ran LSTMs for a client project.
- Contribute to 'ThinkML,' a project aimed to promote machine learning in an open source community that shares, collaborates and innovates.
- ETL-ing Postgresql based databases using Amazon Redshift.

06/2015 to 01/2017

Assistant Professor

Kakinada Institute of Engineering & Technology – Kakinada, India, India

- Assigned to department of computer science to teach OS, AINN, MFCS for 3rd year undergraduate students.
- Mentor and guide students on project selection, internship opportunities, and career development.
- Organize and facilitate conferences and workshops for students on-campus Project.
- Worked under Professor K.V.Ramana, Professor of Computer Science and Officer on Special Duty, JNTUK, Kakinada.
- Project involved creating a serverless ML model via REST API to solve regression problems.

EDUCATION AND TRAINING

2014

Post Graduate Diploma: Management

Indian Institute of Management Indore

2012

Bachelor of Technology: Computer Science & Engineering

Kakinada Institute of Engineering & Technology, JNT University – Kakinada India

CERTIFICATIONS

- A Beginner's Guide to ML with Unity, Udemy
- Neural Networks and Deep learning, Deeplearning.AI, Coursera
- Convolutional Neural Networks, Deeplearning.AI, Coursera
- Improving Deep Neural Networks, Deeplearning.AI, Coursera
- Participated in an invite only boot camp on 'Full Stack Deep Learning' at the University of California, Berkeley organized by Pieter Abbeel, Sergey Karayev, and Josh Tobin
- Attended Neuromatch Academy 2020 for computational neuroscience workshop
- Attended CNeuro 2020, a Theoretical and Computational Neuroscience summer school

ADDITIONAL INFORMATION

- Selected for Google's CSRMP Spring 2021 program TechFellow for CodePath at UTA.
- I ran Codepath's Android App Development course for a class of 30 students at UTA.
- Won First Prize for my Lightning talk – Test Bed For AGI at SCRF conducted at UTA
- Selected as a member of Tau Beta Pi honor society at UTA
- Member of PSF - Python Software Foundation