Ananth Shreekumar

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EDUCATION

Integrated Master of Technology in Computer Science — Aug 2016 - Present

International Institute of Information Technology - Bangalore (IIIT-B)

- 8th Semester Student, CGPA : **3.9 / 4.0** [transcript]
- 5 year program, Expected Graduation : **July, 2021**

EXPERIENCE

Research Intern - Open Set Recognition Methods for Microscopic Urinalysis — Jan 2019 - Jul 2019

Computational Sciences Laboratory - IIIT-B — Prof. G N Srinivasa Prasanna

- Open Set Recognition methods that accurately classify in-class (positive) samples and reject out-of-class samples.
- Implementation of the existing technique OpenMax as an application on this dataset.
- Created a novel approach that increased rejection accuracy by 10% while maintaining positive class accuracy at 85%.
- Work included in a paper that was accepted at the **Medical Imaging meets NeurIPS 2019 workshop, 33rd Conference on NeurIPS**.

PUBLICATIONS

- Tarun Dutt, G.N.S. Prasanna, T.R. Dastidar, and Ananth Shreekumar. *Towards Artifact Rejection in Microscopic Urinalysis*. Medical Imaging meets NeurIPS 2019 workshop, 33rd Conference on Neural Information Processing Systems. [pdf]
- Ananth Shreekumar*, Biswesh Mohapatra*, and Srisha Rao. *Incorporating Autonomous Bargaining Capabilities into E-Commerce Systems*. 20th ACM International Conference on Intelligent Virtual Agents. [Accepted]

PROJECTS

E-Commerce Bargaining Agent — Aug 2019 - Jul 2020

7th Semester - Artificial Intelligence Course — Prof. Shrisha Rao

- Implementation of an E-Commerce Agent that has the ability to bargain with a user by offering discounts, recommending product bundles, and evaluating counter-offers made by the user.
- Evaluate offers and propose counter-offers using the Thomas-Kilmann Conflict Mode instrument and the BOA Model.
- Work accepted as a full paper at the **20th ACM International Conference on Intelligent Virtual Agents (IVA'20)**.

Mapper - Computational Topology — Mar 2020 - Apr 2020

8th Semester - Topological Data Analysis course — Prof. Amit Chattopadhyay

- Implemented the Mapper algorithm from Computational Topology.
- Involves dimensionality-reduction that requires implementing a variable number of loops, which is solved by looping within recursion.

code

A Column Store database — Apr 2020 - May 2020

8th Semester - Data Modeling course — Prof. Chandrashekar Ramanathan

- Implemented a schema in XMLSchema for Relational Database schemas. This required working at a meta-meta-data level.
- Implemented Schema Extractor and Schema Loader classes, that parse an XML instance of the above XMLSchema and create required Tables, Views and add the appropriate Entity-Integrity Constraints and Referential Integrity Constraints.

code

EXTRA-CURRICULARS

Global Leader Experience, Bangalore — Dec, 2019

Conducted by Common Purpose

- This week-long program was designed to build leadership and team working skills and to develop Cultural Intelligence.
- The theme: "How do you ensure that technological innovation provides economic as well as social value in cities?"
- Worked with students from **King's Business School, London** to provide a solution for a complex problem in Bangalore.

TECHNICAL SKILLS

Programming Languages : Python • C++ • C

Data Science : Pytorch • Scikit-Learn • Tensorflow • Keras • OpenAI-Gym

Tools : Git • Jenkins • Docker • GNUPlot • LaTeX

Others : SQL • XML • Linux • MS Excel