# Ananth Shreekumar

**4th year Student of Integrated MTech in Computer Science at IIIT-B**

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## EDUCATION

**Integrated Master of Technology - Computer Science**                      Aug 2016 - Present

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY - BANGALORE (IIIT-B)

- 7th Semester Student, CGPA : **3.88 / 4.0**                      🔗 TRANSCRIPT
- 5 year program, Expected Graduation : **July, 2021**

## EXPERIENCE

**Teaching Assistant**                      Aug 2019 - Present

MATHEMATICS FOR MACHINE LEARNING - IIIT-B

Responsibilities include handling tutorial classes, problem solving sessions and exam paper evaluation.

**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 technique OpenMax as an application to a dataset of artifacts found in urine samples.
- Created a novel approach that performed well on this dataset : classification of an out-of-class sample varies highly when its image is center-cropped with varying sizes. This distinguishes it from a positive class sample as the latter is classified consistently into the same positive class.
- Maintained positive class accuracy at 85% while increasing rejection accuracy by 10%.
- Contributed to writing a paper that has been accepted in the Medical Imaging meets NeurIPS 2019 Workshop, 33rd conference NeurIPS 2019.

## PUBLICATIONS

- Tarun Dutt, Ananth Shreekumar, G.N.S. Prasanna and T.R. Dastidar. "Towards Artifact Rejection in Microscopic Urinalysis". In Medical Imaging meets NeurIPS 2019 workshop, 33rd Conference on Neural Information Processing Systems. NeurIPS 2019.

## PROJECTS

**E-Commerce Bargaining Agent**                      Aug 2019 - Present

7TH SEMESTER - ARTIFICIAL INTELLIGENCE COURSE                      PROF. SHRISHA RAO

- Implementation of an E-Commerce Agent that will ultimately have the ability to bargain with a user by offering discounts and recommending product bundles, while also being able to evaluate counter-offers made by the user.
- Built a skeleton framework on which tests and experiments can be run.

**Toxic Comments Classification**                      Sep 2018 - Nov 2018

5TH SEMESTER - MACHINE LEARNING COURSE                      PROF. G SRINIVASARAGHAVAN

- Multi-label machine learning classifier that can classify comments found online into one or many of the classes that denote different types and levels of vituperation.
- Training included various Machine Learning methods and their ensembles, and blending and stacking.

**Bangalore Metropolitan Transport Corporation - Cost Minimization**

Project Intern - IIIT-B     Prof. V N Muralidhara

- Optimization of the Bangalore Metropolitan Transport Corporation bus schedule to minimize cost of operation.
- Constraints included a strict time table while maintaining the number of buses along a route.
- The overall cost of operation was calculated from the salaries of the various worker roles.

## TECHNICAL SKILLS

**Programming Languages** : Python • C • C++     **Tools** : Git • LaTeX• OpenCV

**Data Science** : Numpy • Scikit-Learn • Tensorflow • Keras     **Basic** : SQL • Linux • Web Dev.

## COURSE WORK

**Theory and Systems** : Data Structures and Algorithms • Introduction to Automata Theory and Computability • Operating Systems • Database Systems • Programming Languages • Software Engineering

**Data Science and AI** : Machine Learning • Automatic Speech Recognition • Visual Recognition • Artificial Intelligence • Reinforcement Learning

**Mathematics** : Linear Algebra • Convex Optimization • Discrete Mathematics • Probability Theory

**Others** : Digital Design • Signals and Systems • Computer Architecture • Computer Networks

## ACHIEVEMENTS

Selected for **Dean's Merit List** at IIIT-B for three consecutive years for academic excellence.     2017 - 2019

Received **Merit Scholarship** at IIIT-B for two consecutive years.     2017 - 2018

All India **IIT-JEE Main** Examination - Scored in the 99th percentile     2016

Karnatake State **Common Entrance Test** - Scored in the 99th percentile (Rank 98)     2016

**National Rank Winner** of the 2nd International Level Science Talent Search Exam.     2007

## HOBBIES AND INTERESTS

**Linux**

I am an Arch Linux enthusiast and I spend a few hours a month customizing my installation.     🔗 DOTFILES

**日本語 (Japanese)**

Learning Japanese using the Genki Textbooks and Anki App. Currently able to read and write ひらがな and カタカナ, trying to pick up 漢字.

**Table Tennis**

Participated in many local and inter-school tournaments.

✉ · 🌐 · in · github     Ananth Shreekumar