

# Prashanth Ravichandar

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## EDUCATION

### University of Southern California

*Master of Science in Computer Science*

August 2022 – Present

4.0/4.0

### Indian Institute of Technology Guwahati

*B.Tech in Engineering Physics, Minor in Computer Science and Engineering*

2016 – 2020

9.11/10.00 (Department Rank 1)

## EXPERIENCE

### Senior Technology Associate

*Morgan Stanley*

August 2020 – July 2022

*Mumbai*

- Analysed distributed in-memory caching solutions, with Redis and Apache Ignite, to speed up risk calculations
- Developed .NET Core application using microservices architecture as part of the mortgages team. Adopted domain-driven design to upgrade existing monolithic architecture to microservices-based architecture

### Research Intern

*Prof. Aditya Gopalan, Dept. of ECE, Indian Institute of Science*

May – August 2019

*Bengaluru*

- Investigated the problem of sequential detection of change in the distribution of data with adaptive measurements
- Performed a literature survey along with a preliminary problem formulation, in the context of multi-armed bandits

## PROJECTS

### Analysis of Surface Names for entities in Wikipedia

*Prof. Amit Awekar, Dept. of CSE, IIT Guwahati*

July 2019 – June 2020

*Github link*

- Analyzed the characteristics of incorrectly mapped links in Wikipedia pages and explored solutions to correct them.
- Created a novel dataset to aid in further research to provide contextual information of errors

### Atari Pong - OpenAI gym

*Github link*

- Trained an artificial agent to play the Atari game - Pong, using policy gradients, with raw game pixels as input

## KEY COURSES

**Mathematics:** Linear Algebra, Advanced Calculus, Graphs and Matrices

**Computer Science:** Analysis of Algorithms, Computer Systems, Computer Architecture, Software Engineering

**Artificial Intelligence:** Robot Dynamics and Control, Fundamentals of AI, Machine Learning, Deep Learning, Convolutional Neural Networks (CS231n Stanford), Reinforcement Learning (David Silver)

**Miscellaneous:** Game Theory, Computational Physics

## ACHIEVEMENTS

- Institute Silver Medal:** Received the Institute Silver Medal for securing 1st rank in the Department of Physics
- Institute Merit Scholarship:** Received a scholarship for best academic performance in the class in the academic year 2018-19
- Inter IIT Tech Meet 2018:** Secured **Bronze medal** in the Star Cluster Identifier event, amongst the 23 IITs participating
- M.P.Birla Institute of Fundamental Research:** Graded excellent at the Summer School in Astronomy & Astrophysics, 2014
- Hindustani Talavadya Junior Grade in Tabla - 2012:** Secured first class
- 21st National Chess Championship - 2007:** Ranked 158 on the merit list in the Under 9 category

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, C/C++, MATLAB, C#, SQL, TypeScript, HTML/CSS, LaTeX

**Libraries/Frameworks:** PyTorch, Pandas, NumPy, Matplotlib, Flask, Angular

**Tools:** Docker, Git, Unix/Linux

## EXTRACURRICULAR ACTIVITIES

### Club Secretary, Astronomy Club, IIT Guwahati

*April 2018 - 2019*

- Supervised the planning, financially and technically, and growth of the club. Led the development of projects including a planetarium, astronomical data analysis, star spectroscopy, space balloon, and radio astronomy

### Organizer, Techniche, IIT Guwahati

*September 2016 - 2017*

- Organized the Exhibitions and Industrial Conclave modules of the annual techno-management festival. Interacted with prominent industrialists from Bosch, IBM, and Dell as well as several research groups from USA, Bangladesh and India

### Volunteer, Sri Sathya Sai Vrinda

*October 2015 - Present*

- Participated in several activities such as serving breakfast to children at government schools, providing COVID relief kits in slums, developing a website to help deliver free educational content, and translating Sanskrit verses from ancient Indian texts