# Sahana Pramod Joshi

Sahanajoshi.github.io

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**♦** LinkedIn Profile

**470-439-1670** 

## **EDUCATION**

### Georgia Institute of Technology

Atlanta, GA

Master of Science in Electrical and Computer Engineering

Dec 2022(Estimated grad. month)

**PES** University

Bangalore, India

Bachelor of Technology in Electronics and Communication Engineering

August 2018

**PES** University

Bangalore, India

Minor in Computer Science and Engineering

August 2018

## **KEY SKILLS**

- o Python, Java.
- PyTorch and derived libraries like Lightly and Detectron2.
- Web development using Django. REST APIs and web hooks.
- Fair understanding of shell scripting
- o Deployment of projects using Docker containers. Fair understanding of Kubernetes.

## ACADEMIC PROJECTS

## Special Problem Research

May 2021 - Present

- o Exploring Self-supervised learning as an initialization for Reinforcement Learning agent to play Starcraft 2.
- Establishing and training an object-detection pipeline(based on SSL) and use the model weights to initalize the agent, hoping to improve sample efficiency.
- o Exploring a custom loss function to improve generalization of representations.

#### RL agent to play Atari games on OpenAI Gym

Apr 2021 - May 2021

- As a final project for Statistical Machine Learning course, created an agent that plays Atari games, like Breakout.
- Tried different algorithms like DQN, Duelling DQN, A2C

#### Controlling a wheelchair using EEG waves

Jan 2018 - May 2018

- As a final year undergrad project, used subjects' EEG signals to determine the intended direction of movement.
- o Framed the task as a 4-way linear classification problem on the features extracted using PCA.
- Publication in IEEE.

## **EXPERIENCE**

Cisco Systems Inc.

Bangalore, India

Network Engineer

Aug 2018 - Nov 2020

- o Network infrastructure deployment using Cisco's SDN solutions in the Enterprise and Data Center domains.
- o Built several automation and monitoring scripts, still in use today.

Intern

Jan 2018 - June 2018

- Designed and developed a website for booking lab devices to test solutions on.
- o Used Django as a framework and AngularJS for the frontend. This project was widely accepted.

Adobe Systems Inc.

Bangalore, India

Intern

May 2017 - Jul 2017

- o Compared and benchmarked different deep learning frameworks using the LeNet-5 architecture on MNIST dataset
- Worked on the initial stages of a Reinforcement Learning based as-recommendation engine.

# COURSES IN MASTERS PROGRAM

- o Deep Learning
- o Statistical Machine Learning
- Convex Optimization
- Advanced Programming Techniques (C++)
- o Math. Foundations for Machine Learning

## AWARDS AND ACHIEVEMENTS

- o Top 10 in Cisco Innovation Challenge, Asia-Pacific region, Jan 2020
- o Cisco DevNet Professional Certification
- Gold medalist in B.Tech in ECE.