

AAKASH KRISHNA GS

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TECHNICAL SKILLS

- **Areas:** Machine Learning, Artificial Intelligence, Artificial Neural Networks, Reinforcement Learning, Computer Vision, Natural Language Processing
- **Languages:** Python, Java

WORK EXPERIENCE

TCS Research and Innovation

Research Engineer, Data and Decision Sciences Group

Bangalore, India

July 2019 to present

- Built an Electric Vehicle (EV) User Behavior and Traffic Simulator for Luxembourg City
- Developed Reinforcement Learning based algorithms for dynamic pricing to manage demand-supply of EV Chargers
- Developed a parallel execution system to help speed up and automate the training process, cutting execution times in half

TCS Research and Innovation

Research Intern, Data and Decision Sciences Group

Hyderabad, India

January 2019 to July 2019

- Developed Cyber Physical Models for solar PVs
- Built a test suite for analyzing large scale solar PV behavior
- This test suite helped validate existing and develop new fault detection and classification algorithms

Thermo Fisher Scientific

Software Development Intern

Bangalore, India

May 2018 to July 2018

- Built a CNN based classifier to help the robotic arm identify specific locations for different Thermo Scientific instruments
- Built a pipeline to automate movement of hazardous chemicals to specific locations on Thermo Scientific instruments

EDUCATION

B. Tech Computer Science

Amrita School of Engineering

Coimbatore, India

2015 to 2019

- Graduated **First Class** with **Distinction**
- **9.3/10** CGPA
- Top **10%** of class

12th Grade

Suguna PIP School, CBSE

Coimbatore, India

2014 to 2015

- **96.5%**
- Top **5%** in school

PUBLICATIONS

- [1] **Aakash Krishna**, Ajay Narayanan, Sunil Krishnakumar, Prasant Misra, Arunchandar Vasan, Venkatesh Sarangan, and Anand Sivasubramaniam. 2020. "Uberizing The Charging Ecosystem For Electric Vehicles". Proceedings Of The Eleventh ACM International Conference On Future Energy Systems. doi:10.1145/3396851.3397758.
- [2] **Aakash Krishna GS**, Vijay Nirmal Pon, Saumya Rai, and A Baskar. 2020. "Vision System With 3D Audio Feedback To Assist Navigation For Visually Impaired". Procedia Computer Science 167: 235-243. doi:10.1016/j.procs.2020.03.216.

PROJECTS

StockMate

Python, Tensorflow, Reinforcement Learning, AI

- A python framework for making stock price predictors and automated trading agents
- Implemented several ANN based regressors and various RL algorithms
- Built a web UI for viewing agent decisions / stock predictions
- Built a chatbot companion to let the user know of any jobs / agent decisions

BlindVision

Python, Tensorflow, Deep Learning, Raspberry Pi

- Developed a system that helps the navigation of visually impaired people
- Using Computer Vision and Deep Learning, a 3D audio signal is created to help give sense of direction
- The methodology was formalized and the findings were published in the Procedia Computer Science Journal

Alnstein

Python, Tensorflow, NLP, ANN

- Developed a virtual assistant for university students
- This assistant can give information about events, faculty such as publications, research interests, projects etc.,
- Implemented a speech to text interface to make it more similar to mainstream virtual assistants
- Built in such a way that new actions and behaviors can be programmed in easily

AnokhaBot

Python, Tensorflow, NLP, ANN

- Built a chatbot for our University's official tech fest (Anokha)
- Users interact with the chatbot to find out about events, timings, contact information, etc.,
- The chatbot was deployed on Anokha's main website and as a Telegram chatbot
- This chatbot was used by hundreds of people during the event

mAlncraft

Python, Tensorflow, Neural Networks

- Developed an autonomous agent that learned (partially) to play the game Minecraft
- Using a CNN model, the agent learnt how to map environments to key presses
- The agent was taught how to avoid obstacles from previous game footage

EXTRA CURRICULAR

Organizer of t{know} Club

Amrita School of Engineering

2016 to 2018

- Organized and conducted multiple events such as coding competitions, hackathons etc.,
- Conducted seminars on various topics such as building chatbots, web-scraping etc.,

Office Bearer of ASCII Club

Amrita School of Engineering

2017

- Helped organize and conduct events for our official coding club

ACCOLADES

- **Best Outgoing Student**, Suguna PIP School
- **Adarsh Vidyarthi** (Given to class toppers), Suguna PIP School