AISHWARYA PADMANABHA

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https://github.com/Padawanabha | https://linkedin.com/in/aishwarya-padmanabha | https://twitter.com/Padawanabha

EDUCATION

Northeastern University, Seattle, WA - *Master of Science in Computer Science* — *Sept 2019 - present*
Courses: Algorithms, Programming Design Paradigm, Data Mining Techniques, Human Centered Machine Learning — *May 2021 (exp)*

SJB Institute of Technology, Bangalore, India - *Bachelor of Engineering in Computer Science and Engineering* — *June 2018*
Courses: Artificial Intelligence, Cloud/Grids/Clusters, Information and Network Security

TECHNICAL SKILLS

Programming languages and mathematical packages: Python, C/C++, Java, Bash, Processing, Arduino, , HTML CSS, Javascript, Octave

Operating Systems: GNU/Linux based Operating Systems, Unix, Windows

Databases: SQLite, Postgres, MySQL

Miscellaneous: PyTorch, openCV, Point Cloud Library (PCL), TensorFlow, Git, Flask, Pelican, Keras, Spacy, RabbitMQ, pika, Docker

PROFESSIONAL EXPERIENCE

AdaptReady Inc. | Software Consultant

+ **Building extraction** | Developer — *Feb – Mar 2019*
  Analyzed geoSpatial data, performed image clipping on TIFF files without loss of latitude and longitude information, created masks for training the model, designed and implemented the machine learning model to train building extraction data
  Tools and languages used: PyTorch, Python, Nvidia GPU, geoTIFF
+ **Relationship Extraction** | Developer — *May – July 2019*
  Manipulated highly unstructured data to find the relationship between 'n' objects by parsing every word in the sentence, deriving context similarities and finally establishing the relationship between them using Spacy
  Tools and languages used: Spacy, scikit-learn, k-means clustering, python, pika, psycogp2
+ **Risk Butler** | Developer — *Mar – Apr 2019*
  Designed, built and launched a script to tap into GDACS RSS Feed and dynamically build a natural calamity database. Gained an understanding of Postgres and using JSON files efficiently and translate JSON data into a database
+ **Points in Polygon (PIP)** | Developer — *Apr – May 2019*
  Executed distributed system architecture while for identifying which manufacturing units lie in the boundary of natural calamities by parsing JSON data files and classified and stored them into categories of danger (Orange, Red, Grey, Green)
+ **Website –** used CSS3 to design vendor accessible pages on the website, was taught how to analyze and build user-friendly front end software.

AnitaB.org (AnitaB [dot] org) | Intern — *Aug – Nov 2018*
+ Headed with their mentoring workshop and dealt with their database using Pandas and SQLLite
+ Tracking and creating unique registration codes for tickets for people from about 40 different companies

ACADEMIC PROJECTS

+ **Curb Ramp Accessibility Detection** — *Feb – Aug 2020 (exp)*
Northeastern University, USA
  Objective: Accessibility in Artificial Intelligence was the goal of this project. We used side walk data from SideWalk API provided by University of Washington along with Google Earth images to detect accessibility of curbs by all kinds of people (people who can walk, people with disabilities, people who can't walk fast because of their age, etc). This project is being done for the City of Seattle.
  Outcome: Exposure to Object Detection using TensorFlow
+ **Pose Estimation of an autonomous vehicle using LiDAR generated data** | Contributor — *Jan – June 2018*
SJB Institute of Technology, India
  Objective: Estimated the pose of an autonomous vehicle by calculating the transformation taken place by the vehicle (object) using LiDAR generated point cloud data using SLAM. Pose estimation is derived using which the subsequent pose can be calculated. This project was sanctioned and partially funded by Visvesvaraya Technological University.
  Outcome: Acquired knowledge of how to manipulate point cloud data and implementation of neural networks

ACCOMPLISHMENTS

+ Received Visvesvaraya Technological University Financial Aid Assistance for Undergrad Thesis
+ Awarded the Grace Hopper Celebration India Scholarship in 2017
+ Co-founder of PyLadies Bengaluru in 2018

LEADERSHIP AND VOLUNTEERING

Free Software Movement Karnakata (FSMK) | Member
Represented my college during the General Body meeting, contributed to bring up ideas for promoting FOSS in other communities during conferences like DevConf by RedHat, FSMK Summer Camp and Open Day at IISc (Indian Institute of Science), Bengaluru, India.

Camp Diaries, Initiative of Teach for India | Member
Orchestrated a team of 8 people to devise the computer science curriculum for students of grades 4 – 7, taught computing and public speaking tactics with an aim of helping in their workplace in the future

TALKS GIVEN

+ Pelican, a Static Site Generator powered by Python for PyLadies Bengaluru
+ Analysis of Iterative Closest Point Algorithm for SJB Institute of Technology, Bengaluru