Aishwarya Mallampati

LinkedIn, Portfolio

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Education

- **Pennsylvania State University, University Park** — State College, PA
  Master of Science in Computer Science and Engineering; — *Jan. 2020 – May2021*
- **IIITDM Kancheepuram** — Chennai, India
  Bachelor of Technology in Computer Engineering; GPA: 3.67 (9.19/10.0) — *Aug. 2014 – July. 2018*

Experience

- **Trimble Inc.** — Chennai, India
  Software Engineer — *Aug 2018 - Dec 2019*
  - Developed a module that generated PDF reports on work progress in QML android application.
  - Derived an algorithm that computes the points of intersection of rotated ellipses(CAD entities) in constant time.
  - Developed modules in GO!Zeit android app using MVVM architecture.
- **Lucid Software Limited** — Chennai, India
  Software Engineering Intern — *May 2017 - Sep 2017*
  - Developed algorithm that optimised CT Reconstruction code up to 67% in terms of memory usage.

Projects

- **Android Development**
  - CriminalIntent: The users of this app can record small crimes in offices by taking the picture of the crime scene, record the date and send a message to suspect using apps such as gmail etc.
  - BeatBox: Built an app using MVVM architecture that plays five soundtracks at the same time.
  - NerdLauncher: Built a custom launcher app to launch apps on an android device.
- **Digital Image Processing II**
  - Homotopic Skeletonization: Performed thinning of images to find their skeleton using hit-or-miss transform.
  - Texture Segmentation: Built gabor filter to segments textures in an image
  - Generated fractals using iterated function systems.
- **Pattern Recognition and Machine Learning**
  - Implemented Linear Discriminant Analysis and Fisher projection on datasets involving classification of wines, individuals performing TaiChi (martial art), and wallpaper patterns.
  - Performed Feature Selection using filter and wrapper methods on EEG, FACE, and individuals performing TaiChi (martial art) datasets.
  - Implemented wallpaper patterns classification model using Convolutional Neural Networks
- **BTech IIITDM**
  - Transfer Function Generation for Direct Volume Rendering: Built a tool that generates transfer functions for direct volume rendering at interactive speed.
  - OOPS: Analyzed performance of different sorting algorithms in C++.Implemented basic graph algorithms using custom queue and stack templates.
  - Computer Networks: Built multiport server and flow control technique simulations using socket programming
  - DBMS: Created back end for restaurant location finder app using MySQL.
  - Operating System: Implemented lazy dentist problem using pthreads and semaphore
  - Embedded Systems: Built a stable version of Linux kernel with minimum kernal image size.

Skills

- **Technical Skills**: Python3, Java, Kotlin, C++, C, Matlab, Verilog, MySQL, Linux, Android, Git, Agile
- **Soft Skills**: Strong team player with good communication skills; Focused and punctual