Aishwarya Mallampati

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Education

- **The Pennsylvania State University, University Park** — State College, PA
  Master of Science in Computer Science and Engineering; GPA: 3.67 — *Jan. 2020 – May. 2021*
- **IIITDM Kancheepuram** — Chennai, India
  Bachelor of Technology in Computer Engineering; GPA: 3.67 (9.19/10.0) — *Aug. 2014 – July. 2018*

Experience

- **The Pennsylvania State University, University Park** — State College, PA
  Graduate Research and Teaching Assistant — *May 2020 - Present*
  - My research is focused on motion tracking in ultrasound imaging using image processing and deep learning
  - Teaching Assistant for Computer Organization and Design course.Help students complete their lab assignments by debugging and reviewing their verilog code.
  - Volunteer: Android Tech Fellow at CodePath.org
- **Trimble Inc.** — Chennai, India
  Software Engineer — *Aug 2018 - Dec 2019*
  - Developed a module that generated PDF reports on work progress in QML android application.
  - Gained strong grip on Android's WiFi and Bluetooth stacks to implement features that support smooth communication between the QML application and lasers.
  - 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 optimized CT Reconstruction code up to 67% in terms of memory usage.

Projects

- **Android Applications (Kotlin, JAVA):** Criminal Intent, NerdLauncher, Flixster, Twitter Client, Instagram Clone.
- **Operating Systems Design(Linux):** Implemented lazy allocation and copy-on-write fork features in xv6, Increased the file size in xv6 and also added support for symbolic links, Added a ready queue in xv6 kernel in order to enable scheduler to pick RUNNABLE process in O(1) time.
- **Digital Image Processing II (MATLAB):** Performed thinning of images to find their skeleton using hit-or-miss transform, Built gabor filter to segments textures in an image, Generated fractals using iterated function systems.
- **BTech IIITDM (C++):** Built a tool that generates transfer functions for direct volume rendering at interactive speed, Built a stable version of Linux kernel with minimum kernal image size.

Coursework

- **PSU:** Advanced Operating Systems, Digital Image Processing - II, Pattern Recognition and Machine Learning, Natural Language Processing
- **IIITDM:** Advanced Data Structures and Algorithms, Digital Image Processing, Probability Theory, Calculus, Linear Algebra, Operating Systems, Computer Networks, Computer Organization and Computer Architecture.

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