

EDUCATION	<p>Carnegie Mellon University, Pittsburgh, PA <i>Master of Science, Electrical and Computer Engineering</i> May 2017 Courses: Introduction to Machine Learning (10-601), Embedded Real-time Systems (18-648), Foundations of Computer Architecture (18-640), Mobile and Pervasive Computing (18-843), Building User-Focused Sensing Systems (08-735), How to Write Fast Code (18-645)</p> <p>GITAM University, Visakhapatnam, AP India <i>Bachelor of Technology, Electronics and Communication Engineering</i> May 2015</p>
SKILLS	<p>Languages : C/C++, Java, C#, Ruby, Python, SQL, HTML5, JavaScript, PHP, x86 Assembly, AJAX Frameworks: Android, .NET, TensorFlow</p>
EXPERIENCE	<p>Human Computer Interaction Institute, Carnegie Mellon University <i>Research Associate I, Pittsburgh, PA, USA</i> Summer 2017 - Present</p> <ul style="list-style-type: none"> Developing IoT and mobile, sensor-based monitoring applications that are currently being used in healthcare and medical research <p>Xinthe Technologies <i>Project Trainee, Visakhapatnam, AP, India</i> Summer 2013</p> <ul style="list-style-type: none"> Involved in developing an Enterprise Android Mobile Applications for GIS using ArcGIS Followed a strict software development lifecycle model, and tested applications on-site
SOFTWARE PROJECTS	<p>Mobile Health Applications (HCII, Carnegie Mellon University) Ongoing</p> <ul style="list-style-type: none"> Working on carefully designing mobile and wearable applications for clinical trials that provide interventions based on patient activity for UPMC's Biobehavioral Research in Cancer Treatment Led the development, deployed application suite on Google PlayStore and successfully completed alpha testing for the first cohort of clinical trial recruits at UPMC. <p>Linux Kernel Programming (Embedded Android) (Carnegie Mellon University) Fall 2016</p> <ul style="list-style-type: none"> Wrote a reservation kernel featuring a partitioned multi-core task scheduler implementing the Rate-Monotonic Scheduling policy and a set of bin-packing heuristics (<i>best-fit, first-fit, next-fit</i>) Implemented a SysClock frequency Governor, that conserves energy by performing real-time load analysis and CPU core frequency scaling on the Nexus 7 Android Tablet <p>ZippyAES - A Fast Parallel AES Encryption Ensemble (Carnegie Mellon University) Spring 2016</p> <ul style="list-style-type: none"> Parallelized the AES algorithm with OpenMP on multi-core and CUDA on GPU to achieve a speedup of 8x and 275x respectively, for 128-bit encryption of a file size of 8MB Sped up OpenSSL's Open Source AES plugin up to 3.14x for a file size of 10MB by setting up hardware acceleration via Intel's AES-NI Instruction Set <p>GITAM University Admissions App (GITAM University) Winter 2014</p> <ul style="list-style-type: none"> Developed GITAM University's official <u>University Admissions App</u> on the Google PlayStore
PROJECTS	<p>LivalIndex - An End-to-End Sound Comfort Indexing Service (Carnegie Mellon University) Spring 2017</p> <ul style="list-style-type: none"> Ideated an IoT-based framework which reviews urban areas with an index estimating the sound comfort by performing audio scene classification Achieved an average test classification accuracy of 93% with a Deep Neural Network model on a low computational power device (IoT node), trained with the <u>UrbanSound8K</u> dataset <p>SpineCouch - Body Posture Monitoring Application (Carnegie Mellon University) (video link) Fall 2016</p> <ul style="list-style-type: none"> Devised the rapid prototyping of a multi-sensor systematic alerting IoT system, comprising a Windows .NET Desktop Application communicating with Kinect 2 and a wearable device Wrote a kNN classifier algorithm in C#, built a real-time companion website using a MySQL database, AJAX and PHP, integrating data from Desktop Kinect Application and wearable for analysis and viz <p>Wireless Sensor Network for Disaster Management (GITAM University) (publication link) Spring 2015</p> <ul style="list-style-type: none"> Deployed a Wireless Sensor Network over GITAM University's 100-acre campus and a regional Android app-based warning system as the senior year project
ACTIVITIES	<p>Completed 7 Electronics and Computer Science online courses (MOOCs) on edX (link) Tutored 500+ participants at hands on Android App Development Workshops Headed "Ideacabin", the winner of Wipro's AppThon 2014, a 36 hour app building coding marathon Developed and launched 5+ Android Applications on Google PlayStore with mobile startup "Ideacabin"</p>