

## GANESH RAM KESARLA SHANTHARAM

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### EDUCATION

**CARNEGIE MELLON UNIVERSITY** (December 2019)

**Professional Masters in Software Engineering**

Courses: 17-651 Models of Software Systems, 17-652 Methods: Deciding What to Design, 17-653 Managing Software Development, 15-513 Introduction to Computer Systems

**Indian Institute of Technology Roorkee** (May 2015)

Relevant Coursework (GPA 9.6/10)

Computer Systems & Programming, Electrical Science, Fundamentals of Electronics, Mathematics-1, Mathematics-2, Numerical Methods, Optimization Techniques, Engineering Computation, Process Automation, Physics-1, Physics-2

### SELECT PROJECTS

**Facial Analysis - Emotion Recognition**

**Technologies - Tensorflow, Python, EC2-AWS**

This project lays the foundation for a business idea: "capturing natural expressions of people while watching videos". Here, a convolutional neural network is trained to output a certain confidence across a set of emotions, for a given input image.

**Smart Office (IoT @ IITR)**

**Technologies - Raspberry Pi, Arduino, Zigbee, Apache, PHP, JS**

In order to reduce wastage of electricity at the student activity center, built a wireless network of sensors and actuators to monitor and control all the appliances over a web application. The sensor data retrieved in real time was fed into a learning algorithm to understand the usage pattern and control the devices autonomously. The energy consumption decreased by 12%.

### WORK EXPERIENCE

**October 2017 - June 2018 | Freelancer**

Elicited Requirements, Designed Product Architecture, and Built the complete IoT and Web stack for DigiB that broadcasted location-based ads in tourist buses; Worked with BeatRoute, a logistics startup to develop a demand predictor (DNN) for better inventory management of local grocery stores.

**May 2017 - September 2017 | Software Engineer, CloudxLab**

As a Full Stack Developer, built applications in Django, Angular & Bootstrap; Built a code evaluation application that involved a browser-based terminal, SSH Client, and a cloud-based REPL environment.

**September 2016 - April 2017 | Founder & CEO, Entrochef**

Entrochef is an online marketplace for on-demand home cooked meals. The model was similar to Uber and Airbnb but in the food space. Based on the user's location, home cooked meals in the vicinity could be viewed and ordered. (Transformed the idea into → ~160 daily users).

**May 2015 - September 2016 | Software Engineer, AUTONINJA**

Caused a ~10% increase in the revenue per client by solving a problem pertaining to parallel logins; As a Full Stack Developer, carried out requirement analysis with stakeholders and built end to end web applications involving Webhooks, Websockets, Audio Streaming, Internet Telephony, Authentication, Design of Databases, APIs, UI & UX; Owned repositories of 2 core features; Conducted Technical Interviews & Training Sessions for Freshers.

**May 2014 - July 2014 | Computer Vision Internship at QORQL, Digital Healthcare Startup**

Researched and developed edge detection algorithms that were used in a scanner app on android. Developed a custom heuristic algorithm to identify paper documents. **Technologies - Matlab, OpenCV, Java (Familiar)**

**June 2013 - July 2013 | Internship at BHEL, Electronics Division**

Modeled and simulated solar cells. Implemented & analyzed the performance of "Perturb & Observe" and "Incremental Conductance" MPPT algorithms. **Technologies - Matlab (Simulink)**

**SKILLS: Python, MySQL, Javascript, Matlab, Shell, Django, MEAN, Product Design and Engineering**

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(Please refer to my [website](https://ganeshramks.github.io) for a comprehensive list of projects, accomplishments and leadership experience.)

**ACCOMPLISHMENTS** [[Child Prodigy](#), [Tech Competitions](#), [Academic Awards](#)]

**LEADERSHIP EXPERIENCE** [[Secretary of Artificial Intelligence Society](#), [Class Representative](#), [Teaching Assistantship](#)]

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### SPORTS

Enjoy skating and have been a prominent member of the In-line skating team of HEC at IIT Roorkee since 2013