Naveen Tumkur Ramesh Babu

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EDUCATION

The Ohio State University, College of Engineering — Columbus, United States
Master of Science in Computer Science (**GPA: 3.51/4**) — Aug 2017– May 2019

Siddaganga Institute of Technology — Bengaluru, India
Bachelor of Engineering in Computer Science (**GPA: 8.73/10**) — Aug 2011- June 2015

WORK EXPERIENCE

The Ohio State University, Columbus, USA — Jan 2018 – May 2018
Graduate Teaching Assistant, Introduction to Computing Technology

- Teaching basic Computer Science concepts like Computer Organization, Database Systems, Operating System, Basics of Networks and Computer Security to classroom of 40 students. Responsible for conducting Lectures, Labs and Tutorials.

ORACLE, Bengaluru, India — June 2015-June 2017
Software Developer I, Communication Global Business Unit (**CGBU**)

- Oracle Communication Diameter Signaling Router (**OCDSR**) is a signaling routing node in LTE network which is primarily used to sustain huge demand of voice and data traffic.
- Complete ownership of signaling code changes, AUTs and GUI changes of Excessive Request Reroute Alarm feature.
- Contributed to white paper design, signaling code changes and GUI changes for Extracting External-Identifier from grouped AVP which was an IOT feature.
- Worked on signaling feature to assign 16 priorities with 4 congestion levels. The system had 20% less call drops.
- Took initiative to improve Compilation and running AUTs using multiple cores which gave 26% time improvement.

RESEARCH EXPERIENCE

The Ohio State University, Columbus, USA — Dec 2017 - Present
Autonomous Selfie Drone System, ReROut Lab (OSU)

- Building an Autonomous Selfie Drone which efficiently captures the best Selfie given the power, boundary and time constraints using current Drones. Research Problem is to build state-of-the-art Autonomous Drone for taking Selfie and Energy consumption model which recommends the resources and waypoints to choose.
- Used A*, K-NN algorithm for space exploration, offline and online policy learning, OpenCV and DLIB for face recognition, task parallelization using GPU and OpenCL.

ACADEMIC PROJECTS

DRONE IMAGE RECOGNITION — October 2017

- The Project will visualize (i.e. generate a graphic) where the camera was when each image was taken and how it was posed, relative to the pattern. Crucial for Image and QR code recognition from different orientations using a drone.
- Used Python-3.6, OpenCV-2, NumPy and SciPy.
  GitHub Link: https://github.com/naveentrtumkur/Drone_Project.git

SMART SHOPPING ASSISTER — May 2015

- The project uses Cloud Computing Concepts and an Android app which gives customized offers to registered users and a portal for shopkeepers to add their products and offers.
- Enabled Data Analysis to predict customer's interest pattern to match the interest pattern to 70% accuracy.
- Developed a complete portal for the project and actively contributed to class diagram, database design.

STEGANLYSIS TOOLKIT — April 2013

- Developed a fast decoding algorithm to hide and detect text within images of the format JPG, PNG, GIF and BMP. These kinds of tools are widely used by United States military force and international law enforcement agencies.
- Implemented using Image processing, Cryptography, C# and .Net as platform.

TECHNICAL SKILLS

Programming Skills: C, C++, Java, Unix, PHP, JavaScript, HTML, CSS, SQL**,** Git, ClearCase, Android, Python, OpenCV
Technology: LTE, Core Network, Cloud Computing, IoT (Internet of Things), Web Development, AUAV (Drones), Hadoop, Yarn
Coursework: Parallel Computing, Computer Communication Network, Computer Architecture, Machine Learning, Algorithms, Data Structures, Operating system, Computer Networks, Distributed Systems, Software Engineering, Artificial Intelligence, Big Data