JAYANTH PUTTA

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EDUCATION

National Institute of Technology Karnataka **GPA: 9.13/10**
B. Tech in Electronics and Communication Engineering, Expected to graduate in 2019

Senior Secondary High School **Percentage: 96.4%**
Central Board of Secondary Education, High School, Bangalore

Matriculation **GPA: 10/10**
Central Board of Secondary Education, High School, Bangalore

COURSEWORK

- Mathematics for E&C Engineering (Linear Algebra, Probability Theory, Numerical Methods)
- Data Structures and Algorithms | Multivariate Calculus
- Stochastic Processes and Applications (Bernoulli, Poisson, Markov processes and models)
- Digital Signal Processing | Linear Systems and Signals | Microprocessors

COMPUTER PROGRAMMING SKILLS: MATLAB, Python, C++, C, Java, Android, Theano & Tensorflow frameworks

PROJECTS COMPLETED

LIE DETECTOR (ASSOCIATION FOR COMPUTING MACHINERY)

- Developing a lie detection system using **micro-expression analysis** by analyzing video feed from the MIT AMFED dataset
- Video feed analyzed, frame by frame, using concepts in Signal Processing & Machine Learning such as **video magnification**, face detection, and **feature extraction & classification**

IOT - BASED SMART VILLAGE

- Developed 4 different modules, using **Raspberry Pi** & Intel Galileo (Python, Android, C languages)
- **Transportation**: Reducing waiting period in villages using bus GPS location and displaying ETA at the village bus stand
- **Healthcare**: Tracking patients' vitals and **automatically notifying** nearby doctors in case of any irregularity
- **Irrigation**: Minimizing water wastage by tracking moisture levels and weather forecasts together
- **Warehousing**: Increasing market access and quality control by **automating** dealing between farmers and buyers

EMBEDDED SYSTEMS AND IOT

- Simulated **Texas Instruments** TM4C123 microcontroller through simulation software Keil
- Developed a traffic light controller for a standard four way intersection with pedestrian support entailing finite state machines, interrupts and functional debugging

COURSES AND WORKSHOPS

MACHINE LEARNING: STANFORD UNIVERSITY (COURSERA) : *Machine Learning algorithms and system design by Prof. Andrew Ng*

- **Supervised Learning:** Linear Regression, Logistic Regression, Support Vector Machines (SVMs)
- **Unsupervised Learning:** Clustering, K-Means Algorithm
- **Neural Networks:** Forward/Backward Propagation, Gradient Checking, Weight Initialization
- **Dimensionality Reduction:** Principal Component Analysis; **Diagnosing** bias and variance
- Analysed algorithms for Anomaly Detection and Recommender Systems (Collaborative Filtering)

GOOGLE ACSA WORKSHOP: *Solidify and apply concepts from algorithms and data structures, Computer Science coursework*

- Conducted technical workshop on Data Structures and Algorithms with participation of **45+** students
- Developed games such as Scarne's Dice, Ghost and Puzzle-8 with sophisticated **backend** algorithms (such as **A* Search**) to improve game efficiency, speed and playability
- Implemented Binary Trees, Tries, Heaps and Search algorithms using Android as a platform

PROFESSIONAL EXPERIENCE

COMINT SYSTEMS AND SOLUTIONS: ***Technical Intern*** *under Research & Development Head* Summer 2017

- **Spearheaded** project to build a tuneable frequency generator (35 MHz – 4 GHz) using PIC18F4580 microcontroller and Phase-Locked Loop (PLL) chip ADF4351
- Administered training sessions for **2** new hires in **C programming** and programming techniques
- Programmed **SPI - based** interface for PLL and interfaced required peripherals (UART, LCD, etc.)
- Debugged and tested multiple programs for **optimization** in speed and memory requirements

CGI GROUP INC.: ***Technical Assistant*** *at Project Management Office, APAC Financial Services Delivery Centre* Winter 2016

- Analysed resource allocation workflow to identify bottlenecks and proposed **2 enhancements**
- **Case Study 1:** Determined a company's growth strategy based on analysis of financial data/exhibits
- **Case Study 2:** Investigated a company's go-to-market strategy to determine future product releases
- Determined ideal investment options using **Du Pont Analysis** to identify RoE of **10** companies

POSITIONS OF RESPONSIBILITY

VICE-PRESIDENT EDUCATION (TOASTMASTERS)

- **Executing** assign-and-supervise mentor program and conducting training for members
- Organizing meetings and setting goals with mentors; **responsible** for happiness of **25+** club members

JOINT CO-ORDINATOR (ASSOCIATION FOR COMPUTING MACHINERY)

- **Oversaw** recruitments of **150+** students by maintaining **6** panels for Group Discussions and Interviews
- In charge of organizing multiple events with each event having a footfall of **over 100** students

SCHOLASTIC ACHIEVEMENTS

- Secured rank of **2433** out of 1.3 million students in JEE Mains (Engr. Entrance Examination, 2015)
- Scored **2380/2400** in SAT Subject Tests (SAT II)
- National Talent Search Examination (NTSE, 2012) State Scholar making it to top **0.5%** in India
- Semi-Finalist of Uber Challenge, Mangalore

EXTRA-CURRICULAR ACTIVITIES

VOLUNTEERING

National Service Scheme (NSS): Executed annual Blood Donation Drive involving **3** major hospitals and organized registration of **200+** participants

BOSCO Mane (NGO): Conducted tutoring sessions in subjects of English, Mathematics and Computer Science for underprivileged students in the age group of **13-15 years**

ACM Social Welfare Schemes - Shiksha & Vidyarthi**:** Tutoring in English and Computer Science for underprivileged students of the NITK Kannada Medium School in the age group of **8-10 years**

TABLE TENNIS

- Secured **Second place** in citywide Table Tennis competition organized by TISB, Bangalore
- Secured **First Place** in inter-section Table Tennis competition held in NITK (12 sections)