

Vilas M

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EDUCATION

National Institute of Technology, Karnataka, Surathkal, Mangalore, India

- B.Tech in Computer Science and Engineering, Junior Year Jul 2015 – May 2019
 - CGPA of **9.34/10.00** (As of September 2017)
 - Relevant Courses: Data Structures and Algorithms, Operating Systems, Design and Analysis of Algorithms, Object Oriented Programming, Automata Theory, Computer Organisation and Architecture

Lourdes Central School, Mangalore, India (CBSE)

- Class 12 - **97.40 %**, School Topper, Scored **100/100** in Mathematics

Canara High School (Main), Mangalore, India (Karnataka State Board)

- Class 10 - **95.52 %**

TECHNICAL EXPERIENCE

Samsung India, R&D Centre, Bangalore, India

- Software Engineering Intern May 2017 – Jul 2017
 - Learnt about GPU Computing and the OpenCL framework
 - Worked with the Image Sensor team on reducing the compute time latency of many image processing algorithms on target device GPU
 - Final overall compute time optimisation of 98.82% was achieved

TECHNICAL SKILLS

Languages - C, C++, Erlang, Python, Javascript

Tools/Framework - Git, OpenCL, CUDA, Node.js, AngularJS, Keras, MongoDB, MySQL, STL

SELECTED PROJECTS

All projects are available on github - <https://github.com/vilas897>

- **E-Commerce Website**
 - Developed a web application using MEAN (MongoDB, Express, AngularJS and Node.js)
 - The product details were web scraped using Python
 - The website supports features such as product search, user log in, user cart etc.
- **Gender Classification**
 - A Deep Learning Project that classifies the gender of a person, given the face image as input using Convolutional Neural Networks with the help of the Keras deep learning framework.
 - A cross validation accuracy of 90.92% was achieved.
- **Tetris**
 - Classic game of Tetris developed using the FLTK graphic rendering library in C++.
 - An object oriented design was followed in the implementation
- **Chat Server**
 - Developed a Chat Server using Erlang, a functional programming language. The server supports private and group messages
 - Client is notified when another client joins or leaves the chat server
- **Parallel Programming**
 - Implemented a number of Parallel Algorithms such as Image Convolution, Histogram, Gaussian Image Blurring, Prefix Scan, Sum Reduction etc using CUDA.
- **OS Simulator**
 - A user friendly web application that simulates various functions of an operating system.
 - Built using Django Web Framework and uses Python for backend computation. Client side scripts are mainly written using JavaScript and uses jQuery.
 - Worked on the algorithms, python backend model and front end design.

ACHIEVEMENTS

- Ranked **2nd** in India, **214th** globally in **IEEE Xtreme10.0**, a 24 hour coding contest held by IEEE.
- Ranked **380** among 1.3 million candidates in the country in **JEE Main 2015**
- One among the **top 30** in the state in the **Regional Maths Olympiad**
- Ranked **42** among 170,000 candidates in the state in **KCET 2015**
- Selected for prestigious national government scholarships such as **KVPY (2015)** and **NTSE (2011)**
- Awarded Merit Certificates for being among **top 1%** in the country in Physics, Chemistry and Astronomy Olympiads 2015
- Percentile of **99.95** obtained in the Class 12 CBSE Board Examination.

EXTRA CURRICULAR ACTIVITIES

- **Executive Member**, IEEE, NITK Chapter
- **Treasurer and Executive Member**, Web Enthusiasts' Club, NITK
- Taught math at CFAL, Mangalore to class 8-12 students amounting to 200+ hours of experience