

MEGHANA LAXMIDHAR

GAOPANDE

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Blacksburg, VA



EDUCATION:

MS - Computer Engineering | Current GPA: 4.0 | Virginia Tech

Jan 2018 – Present

Bachelor of Engineering - Electronics and Telecomm. | Cummins College of Engineering, India

June 2010 - May 2014



WORK EXPERIENCE:

Graduate Teaching Assistant | Virginia Tech, Blacksburg, VA

Jan 2018 - Present

Courses: ECE 1574: Engineering Problem Solving with **C++**, ECE 2574: Data Structures and Algorithms (C++)

Embedded OS Software Developer | Cummins Technologies India Ltd, India

Aug 2014 – April 2017

- **RTOS** and **bootloader** development in **Embedded C** for automotive **microcontrollers**: MPC56xx 32-bit PowerPC, 8-bit S08
- Developed reusable modules for **I/O drivers** and **memory management**.
- Led development of EEPROM emulating flash memory management module.
- **Agile SDLC** experience over two full product development cycles.
- Documented software requirements, design, hardware-software interfaces, failure mode analysis.
- Experience with **CAN** protocol, **GNU** tools, debugging over **JTAG** and **NEXUS**.

Project Intern | Cummins Technologies India Ltd, India

Aug 2013 – May 2014

Prototype **Bluetooth Low Energy** adapter to transmit diagnostic data fetched from engine controller sensors over **I2C**.



PROJECTS:

- **Refreshing data cache in DRAM**: Implemented Cache replacement policies using **C++** and **C** | Integration with Pin tool | NAS **Parallel Benchmarks** performance data collection and analysis
- **Flat Combining in hash maps**: **Java** implementation of multiple experimental techniques of flat combining in **concurrent**, **multithreaded** hash maps and analysed performance.
- **Speed limit sign detection and recognition**: Using pre trained **neural network** and transfer learning
- **Attribute ranking in Bank Marketing Data**: Kappa based Ablation study of attributes using **classification** techniques: C4.5 trees, Bayesian Networks, Random forests in **Java** using Weka



SKILLS:

Experienced: C++ | C | Embedded C | Linux

Familiar: Java | MATLAB | Python



GRADUATE COURSEWORK:

Completed: ECE 5504: Computer Architecture | CS 5525: Data Analytics | ECE 5510: Multiprocessor Programming | ECE 5554: Computer Vision

Ongoing: CS 5824: Advanced Machine Learning | ECE 5550: Advanced Real-Time Systems



ACHIEVEMENTS:

- Employee of the Quarter Q3 2015 | Cummins Electronics
- 'Energy Efficient Unobtrusive Monitoring of Sensors' | Proceedings of 3rd International Conference on Recent Trends in Engineering and Technology, 2014 | Elsevier Science and Technology ISBN: 9789351072218.



ACTIVITIES:

- MOOC '**Algorithmic Toolbox**' (**C++**) by University of California, San Diego with final grade of 95%.
- Participated in the Society of Women Engineers' Professional Symposium for Women in Pune in Aug 2015.
- Freelance journalist | Times of India, Times Neighbourhood | covering civic issues, local events and interviews.