Yash Gangrade

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EDUCATION

Master of Science (M.S.) | ***University of Utah***, *Salt Lake City, UT* **Aug 2017 – Present**

- Major in Computer Science. *(Expected Graduation: May 2019)* **GPA: 4.0**
- Graduate Teaching Assistant for Software Engineering and Probability & Statistics.

Bachelor of Technology | ***Indian Institute of Technology Roorkee (IIT R)*** **2013 - 2017**

- Major in Electronics and Communication Engineering and Minor in Computer Science. **GPA = 8.6/10.0**

PROFESSIONAL EXPERIENCE

Symantec Corporation, Draper, Utah | *Software Engineering Intern* **May 2018 – July 2018**

Project title: "R&D on Data Storage and Management policies of Authentication and Reporter product"

- Developed new file allocation strategies and algorithms to separate the storage of internal files to Solid State Drives and Spinning Disks. Processing speed increased by 25% compared to the existing system.
- Designed novel file indexing schemes to change the underlying data structures i.e. Paged AVL Tree to B+ Tree. Latter is faster than the former in Look-up and Insert operations. Gained 30% increase in the speed of the system.

Samsung R&D, India | *Software Engineering Intern* **May 2016 – July 2016**

Project title: "Developing Application Layer protocols for a Live TV Broadcast System for 4G LTE Platform"

- Designed, optimized and bootstrapped the open source Forward Error Correction codes using techniques like parallel computing and lookup tables to maintain stringent memory and processor constraints.
- Designed a smart feedback-learning mechanism capable of changing parameters depending on the channel conditions. Used Reinforcement Learning approaches. The team followed SCRUM Agile framework.
- Reduced the bandwidth usage by 40% and made the system 3 times faster.

LANGUAGES AND SOFTWARE PACKAGES

- C, C++, Python, R, Java, Bash/Shell, LaTeX, HTML, CSS, JavaScript, D3, SQL, MATLAB
- Git, ParaView, Perforce, Arduino, Adobe Illustrator

TECHNICAL PROJECTS

Development of a Database System **Aug 2018 – Present**

- Working on creating a basic Database System from scratch, implementing several modules like buffer management engine, disk-based B+ tree indexing engine, query optimizers, support for join, union etc. operators.

Transfer functions for OpenSpace 3D Touch Tool **Jan 2018 – Apr 2018**

- Worked with the OpenSpace, NASA team on development of transfer functions and color maps for different celestial objects like Planets, Asteroids etc. representing different parameters like Humidity, Temperature etc.

Classification of N-Dimensional Data using Linear Classifiers Combination **Sep 2017 – Dec 2017**

- Built a system which utilizes a combination of multiple linear classifiers to classify the different classes in N-Dimensional spatial data. Classification accuracies improved by 5-20% using this novel system compared to a single classifier.

Distributed Learning and Adaptation in Cognitive Radio (Thesis) **Apr 2016 – Apr 2017**

- Designed a system with channel selection and access which can effectively adapt to a wide range of traffic load patterns in the primary network. A distributed adaptive learning and access policy and game theory approach was employed.

LEADERSHIP AND POSITIONS OF RESPONSIBILITY

Coordinator | ***Artificial Intelligence and Electronics Society (ArIES), IIT R*** **Aug 2014 – May 2017**

- Mentored & worked with 120 students on several projects. Gave lectures related to Computer Science and Electronics.

Member | ***IEEE Students Chapter*** **Aug 2014 – May 2017**

- Organized various events, guest lectures, and tech-talks with professors who share their research experience.

Graphic Designer | ***Geek Gazette – The Official Technical Magazine, IIT R*** **Aug 2013 – May 2017**

- Designed 25+ articles and 3 websites for the official communique for inquisitive, neophillic and tech-savvy community.