

Yash Gangrade

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EDUCATION

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| Master of Science (M.S.) <i>University of Utah, Salt Lake City, UT</i> | 2017 – Present |
| • Major in Computer Science . (<i>Expected Graduation: May 2019</i>) | GPA: 4.0 |
| • Graduate Teaching Assistant for Software Engineering and Probability & Statistics. | |
| Bachelor of Technology <i>Indian Institute of Technology Roorkee (IIT R)</i> | 2013 - 2017 |
| • Major in Electronics and Communication Engineering and Minor in Computer Science . | GPA = 8.6/10.0 |

PROFESSIONAL EXPERIENCE

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| Symantec Corporation, Draper, Utah <i>Software Engineering Intern</i> | 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 Institute, India <i>Software Engineering Intern</i> | 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

RELAVENT TECHNICAL PROJECTS

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| Development of a Database System | Aug 2018 – Present |
| • Working on creating a novel Database System from scratch. Implementing support modules like buffer management engine, disk-based B+ tree indexing engine, query optimizers, support for join, union etc. operators. Implemented in Java. | |
| 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 N-Dimensional spatial data. Classification accuracies improved by 5-20% as 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

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| Coordinator <i>Artificial Intelligence and Electronics Society (Aries), IIT R</i> | Aug 2014 – May 2017 |
| • Mentored & worked with 120 students on various technical projects. Gave talks related to Computer Science and Electronics. | |
| Member <i>IEEE Students Chapter</i> | Aug 2014 – May 2017 |
| • Organized various events, guest lectures, and tech-talks with professors to share their research experience. | |
| Graphic Designer <i>Geek Gazette – The Official Technical Magazine, IIT R</i> | Aug 2013 – May 2017 |
| • Designed 25+ articles and 3 websites for the official communique for inquisitive, neophilic and tech-savvy community. | |

HONORS AND AWARDS

- Qualified the prestigious IIT-JEE exam with All India Rank 1,173 out of 1.3 million students (Top **0.1%**)
- Bronze medal for securing State Rank 3 and National Rank 196 in Mathematics Olympiad, New Delhi, India (2011).