

Rakesh Jasti | Curriculum Vitae

311 Science and Engineering Building 2, UC Merced, CA 95343

📞 +1 209-421-8236 • ✉ rakeshjasti1@gmail.com • 🌐 rakeshjasti.github.io

Academic Qualifications

- **University of California, Merced** 2018-present
 - *MS in EECS*
- **Indian Institute of Technology, Roorkee** 2011-2015
 - *B.Tech in Pulp and Paper Technology*

Related Experience

- **Centre for Visual Information Technology (CVIT), IIIT-Hyderabad**
 - *Research Intern* May 2017–June 2018
- **Mu Sigma Inc.**
 - *Decision Scientist* May 2015–June 2017

Projects

- **Structured analysis of Broadcast Tennis Videos** May 2017–June 2018
 - *Rakesh Jasti, Anurag Ghosh, C.V. Jawahar* [Paper]
 - Under Review
 - We utilize computer vision methods to track players across points and detect in-point events.
 - We mine data this data for Grand Slam Matches for Federer, Nadal and Djokovic to perform spatiotemporal analysis and compare their strategies and rivalries over time
- **Tracking humans in a crowded scene** Jan 2016–Apr 2017
 - *Client: American airlines company* Mu Sigma Inc.
 - **Significant achievement:** "Impact Award" by the CEO
 - Led a team of 3 members for research on Deep Learning methods for human detection and multi-object tracking
 - Experimented with various detection & tracking techniques to keep track of humans despite occlusions
 - Integrated & optimized different modules to make the solution run at real-time speed with an accuracy of 95%
- **Computational & license resource optimization in a server farm** Oct 2015–Jan 2016
 - *Client: R&D Dept. of a German semiconductor manufacturing company* Mu Sigma Inc.
 - Optimized the Server Farm by predicting R&D job run time, accurate upto 85%, resulting in reduction of the peak load by 7% and peak license demand by 5%
 - Used ARIMAX to forecast EDA License demand with an accuracy of 87% resulting in annual savings of \$2M

- Supply chain optimization & simulation** June 2015–Sept 2015
 Client: *European steel manufacturer* Mu Sigma Inc.

 - Implemented Monte Carlo simulation to assess changes in the supply chain
 - Time series forecasting using Holt's-Winter to predict changes in the supply chain
 - Built a dashboard using D3 to visualize the simulation tool; The dashboard is used for supporting client's Sales & Operations meetings
- Metaheuristics for Global Optimization** Jan 2014–Apr 2014
 Supervised by Prof. Millie Pant IIT Roorkee

 - Surveyed Differential Evolution methods by programming them in C++
 - Improved performance by employing constraint violation methods
- DPTv** Jan 2014–Jan 2015
 Web development Information Management Group, IIT Roorkee

 - Led a team of three members to develop an intranet portal using CSS, Laravel, HTML, MySQL
 - Portal facilitates student activities including attendance details, academic calendar, e-notice, blogs, discussion boards

Skills and Courses

- **Languages:** Python, D3, R, R Markdown, MATLAB, L^AT_EX, SQL
- **Libraries:** OpenCV, PyTorch, TensorFlow, Scikit-learn
- **Verified MOOCs:**
 - Machine Learning by Stanford University on Coursera
 - Machine Learning Foundations: A Case Study Approach by University of Washington on Coursera
 - Machine Learning: Regression by University of Washington on Coursera
 - 6.00.1x: Introduction to Computer Science and Programming Using Python by MITx on edX
 - 6.00.2x: Introduction to Computational Thinking and Data Science by MITx on edX
 - 15.071x: The Analytics Edge by MITx on edX
- **Selected Coursework:** Computer Systems and Programming, Numerical Methods, Optimization Techniques, Computer Aided Graphics, Engineering Computation

Interests and extra-curricular activity

- **Ranked one** at 'Summer School on Machine Learning: Deep Learning', 2017 organized by CVIT, IIIT Hyderabad
- **Lead instructor at Mu Sigma's internal training program:** *Designed beginner & advanced Python & ML courses; Took classroom sessions for about 200 new recruits*
- **National Service Scheme (NSS):** *Gave math & science lessons to underprivileged students & helped people living in slums by organizing medical camps under National Service Scheme*
- **Sports:** *Won several medals in Athletics (long distance running) and Basketball at college level; Currently holding Blue 1 belt in Taekwondo*