

# Rakesh Jasti | Curriculum Vitae

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

📞 +1 209-421-8236 • ✉ rakeshjasti11@gmail.com • 🌐 rakeshjasti.github.io

## Academic Qualifications

---

- **University of California, Merced** 2018-present
  - *MS in EECS (GPA: 4.0)*
- **Indian Institute of Technology, Roorkee** 2011-2015
  - *B.Tech in Pulp and Paper Technology*

## Related Experience

---

- **Vision and Learning Lab, UC Merced** Aug 2018–Present
  - *Research Assistant with Prof. Ming-Hsuan Yang*
- **Centre for Visual Information Technology (CVIT), IIIT-Hyderabad** June 2017–June 2018
  - *Research Intern with Prof. C.V. Jawahar*
- **Mu Sigma Inc.** May 2015–June 2017
  - *Decision Scientist*

## Projects

---

- **Structured analysis of Broadcast Tennis Videos** June 2017–June 2018
  - *Rakesh Jasti, Anurag Ghosh, C.V. Jawahar* IIIT Hyderabad
  - Journal paper under review
  - We utilize computer vision methods to track players across points and detect in-point events.
  - We mine 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"
  - 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 license demand by 5%
  - Used ARIMAX to forecast EDA License demand with an accuracy of 87%

- **Supply chain optimization & simulation** June 2015–Sept 2015  
Mu Sigma Inc.
  - *Client: European steel manufacturer*
  - 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  
IIT Roorkee
  - *Supervised by Prof. Millie Pant*
  - Surveyed Differential Evolution methods by programming them in C++
  - Improved performance by employing constraint violation methods

## Skills and Courses

---

- **Languages:** Python, D3, R, R Markdown, MATLAB, L<sup>A</sup>T<sub>E</sub>X, 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:** Numerical Analysis, 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*
- **Sports:** *Won several medals in Athletics (long distance running) and Basketball at college level; Blue 1 belt in Taekwondo*