

# Joseph K J

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## Research Interests

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Computer Vision, Deep Learning, Machine Learning.

## Education

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Indian Institute of Technology (IIT), Hyderabad M. Tech + PhD Dual Degree in Computer Science and Engineering	9.19 / 10 <i>Jan 2017 - present</i>
Government Engineering College (RIT), Kottayam B. Tech. in Computer Science and Engineering	80.43 % <i>May 2013</i>
Loyola School, Trivandrum Indian School Certificate (ISC), Class 12	92.93 % <i>March 2009</i>
Loyola School, Trivandrum Indian Certificate of Secondary Education (ICSE), Class 10	93.00 % <i>March 2007</i>

## Research Experience

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- **Research Internship, Harada Ushiku Lab, University of Tokyo, Japan.** June - July 2018  
I explored areas related to multi-modal modeling, specifically on generating images that are semantically aligned with textual descriptions about it.
- **Research Assistant, IIT Hyderabad,** Jan 2017 - June 2018.  
I worked on Deep Learning based solutions for visual detection and recognition from Unmanned Aerial Vehicles. The research was supported by Defence Research and Development Organisation (DRDO), Government of India.

## Work Experience

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- **Senior Software Engineer, Oracle Corporation,** July 2016 - Dec 2016.  
As a part of PeopleSoft Cloud Manager Development Team, we build a product from scratch which allows PeopleSoft customers to deploy PeopleSoft Applications on a variety of Cloud and Bare-metal backends. Having been in the team since its inception, I have had the opportunity to contribute towards many part of the product including design, coding, implementation and UX. The product is live here.
- **Software Engineer, Oracle Corporation,** June 2013 - July 2016.  
Stepping into a corporate career, right out of my undergrad studies was equally demanding and rewarding. I had the opportunity to work with a super-talented team on a variety of products vis. PeopleTools Push Notification Framework, PeopleTools Automated Configuration Management Framework and PeopleSoft Internet Architecture. A version tracking application that I had build is still used internally within PeopleSoft.

## Skills

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- Languages: Python, Java, C, JavaScript
- Libraries and Tools: Numpy, Scipy, scikit-learn, OpenCV, Caffe, TensorFlow, PyTorch
- Miscellaneous: Shell Scripting, Dockers, Node.js, Hybrid Mobile App development, Git, ClearCase

## Publications

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1. K J. Joseph, A. Pal, S. Rajanala, V. Balasubramanian, C4Synth: Cross-Caption Cycle-Consistent Text-to-Image Synthesis *IEEE Winter Conference on Applications of Computer Vision, WACV 2019, Hawaii, USA*.
2. K J. Joseph, V. Balasubramanian, MASON: A Model Agnostic Objectness Framework, *International Workshop On Autonomous Navigation in Unconstrained Environments, European Conference on Computer Vision, ECCV-W 2018, Munich, Germany*.
3. K J. Joseph, A. Pal, V. Balasubramanian, Zero-Shot Image Generation by Distilling Concepts from Multiple Captions, *Towards Learning with Limited Labels Workshop, International Conference on Machine Learning, ICML-W 2018, Stockholm, Sweden*.

## Relevant Courses

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- CS6510 Applied Machine Learning
- CS5370 Deep Learning for Vision
- CS5350 Bayesian Data Analysis
- CS6440 Special Topics in Machine Learning
- CS6010 Advanced Data Structures and Algorithms

## Service

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- IEEE ICCV Subreviewer 2017
- IEEE WACV Subreviewer 2018, 2019
- IJCAI Subreviewer 2018

## Achievements

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- Awarded cash prize for being top 20% of participants at ‘Summer School on Computer Vision: 2017’, CVIT, IIT Hyderabad.
- Runner up for ‘Best Student Project Contest 2013’ organized by the Computer Society of India, Trivandrum Chapter.
- Placed in top 500 teams globally, in the International IEEE Xtreme Programming Competition, 2010.

## Positions / Responsibilities

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- Founding Secretary of IEEE Computer Society, RIT Chapter.
- Chief Editor of Click!, the half yearly publication of IEEE Computer Society, RIT Chapter.
- Coordinator of Parallel Programming event in Ensemble-12, a national level technical fest hosted by RIT.
- Facilitator at Fun@Work, an Oracle Volunteer initiative.

## References

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### From Academia

- Dr. Vineeth N Balasubramanian, Associate Professor, Department of Computer Science & Engineering, IIT Hyderabad, Sangareddy, Telangana - 502285, India. E-mail: vineethnb@iith.ac.in
- Dr. Srijith P K, Assistant Professor, Department of Computer Science & Engineering, IIT Hyderabad, Sangareddy, Telangana - 502285, India. E-mail: srijith@iith.ac.in

### From Industry

- Mr. Biju Narayanan, Director, Software Development, PeopleSoft Enterprise Tools, Oracle Development Center, Technopark, Kerala - 695581, India. E-mail: biju.narayanan@oracle.com
- Mr. Hari G I, Senior Principal Software Engineer, Software Development, PeopleSoft Enterprise Tools, Oracle Development Center, Technopark, Kerala - 695581, India. E-mail: hari.g.i@oracle.com