

Avinash Ummadisingu

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Education

Università della Svizzera italiana, Lugano, Switzerland [2016-Current]
Master of Science (M.Sc.) – Informatics

Bangalore Institute of Technology, Bangalore, India [2014]
Bachelor of Engineering (B.E.) – Computer Science & Engineering

Sri Chaitanya Junior Kalasala, Hyderabad, India [2010]
Board of Intermediate Education (11th & 12th)

Gitanjali Senior School, Hyderabad, India [2008]
Indian Certificate of Secondary Education (ICSE 10th)

Work Experience

Mu Sigma Business Solutions Inc. [July 2014 – June 2016]
(Innovation & Development Dept.)

- **Computer Vision** – Developed a system that can track the progress of Blackjack games through cameras, generate real time insights and detect potentially fraudulent behavior for one of the largest Casino chains in the world.
- **Reinforcement Learning** – Worked with a team of 4 exploring Reinforcement Learning for Robotics and Algorithmic Trading. Built a general purpose agent based on “Deep Reinforcement Learning with Double-Q Learning” [Hasselt et al.] and a distributed version of the same based on Google's Gorila Architecture.
- **Semi Supervised Learning for Computer Vision** – Building a system based on Active Learning that will allow users to interactively give feedback about detections, automatically re-train and evaluate newer iterations of any multi-class image detection problem.

Awards

October 2015 – Received a Spot Award from Mu Sigma for “Initiative and drive while researching and implementing the Reinforcement Learning Algorithm for Autonomous Car Control”.

June 2015 – Received a Spot Award from Mu Sigma for work on the Poker Chip recognition and counting algorithm and being an “Effective contributor of the highest order”.

December 2013 - Won 1st place in the “Programmer's Marathon”, a Programming Contest testing aspects of Programming & General Computer Science Knowledge, organized by Hitachi Consulting – Global Development Center.

March 2013 - Placed 4th out of 12,000 teams from across India in the national level “TCS Testimony Contest” on Software Testing and General Software Engineering Practices, conducted by Tata Consultancy Services (TCS).

Papers

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ABCpy: A High-Performance Computing Perspective to Approximate Bayesian Computation, Dutta, R., Schoengens, M., Ummadisingu, A., Onnela, J.-P., & Mira, A. 2017, arXiv:1711.04694

Patents

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Patent filed for work on Blackjack Game Tracking and Insight Generation System using Computer Vision. Patent number: AU2015261614/US20170069159A1

Skills

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Programming Languages Known: Python, C/C++, MATLAB

Frameworks/Libraries: Tensorflow, PyTorch, OpenCV

Languages Spoken : English, Hindi, Telugu, Italian(Basic)