Tanmaya Shekhar Dabral

https://many-facedgod.github.io/

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GitHub : github.com/many-facedgod

Education

- **Birla Institute of Technology and Science** — Hyderabad, India
  B.E.(Hons) in Computer Science; GPA: 9.84/10 — *2014 – 2018(expected)*
- **City Montessori Inter College, CISCE** — Lucknow, India
  Senior Secondary Education; 98.0% — *2014*
- **City Montessori Inter College, CISCE** — Lucknow, India
  Secondary Education; 95.43% — *2012*

Skills

- **Languages**: C, C++, Java, Python, MIPS, SQL, CUDA
- **Frameworks**: Theano, PyTorch, OpenCV, OpenGL

Research and Developement Experience

- **Multimedia Lab, Nanyang Technological University** — Singapore
  Research Intern — *May 2017 - July 2017*
  - As a part of the NTU India Connect Program, worked under Prof. Chng Eng Sion to develop a GPU version of the non-segmental DTW algorithm for audio search
  - Also worked on system to generate a robust representative query from multiple queries for a word.
- **Indira Gandhi Centre for Atomic Research** — Kalpakkam, India
  Research Intern — *April 2016 - July 2016*
  - Designed a novel variant of the Particle Swarm Optimization algorithm for ontolgy alignment.
  - The designed system performed better than the previously published attempt to do so. (See publications)
- **Birla Institute of Technology and Science** — Hyderabad, India
  Undergrad student — *2014 - Present*
  - **Multi-scale CNN for music auto-tagging**: Working under Prof. Malapati, designed and implemented a deep convolutional neural network for music tagging that takes into account the multi-scale nature of musical features. (See publications)
  - **Text summarization using sentence embeddings**: Working under Prof. Anand Narasimhamurthy, developed a system to summarize documents by using a PageRank like algorithm on the sentence embeddings generated out of Word2Vec vectors.
  - **Image processing and machine learning for UTI detection**: Currently working under Prof. Suman Kapur, Department of Biological Sciences, to augment her patented system for quick UTI detection using machine learning (for error correction) and Image Processing (for OD estimation).
  - **Vehicle detection and classification on a video of an Indian highway**: Working under Prof. Anand Narasimhamurthy, designed a system to detect the vehicles in a video of an Indian highway and classify them into heavy and light using blob level features.

Codes and other minor implementations available on GitHub.

Publications

- Tanmaya S. Dabral, Amala S. Deshmukh, Aruna Malapati, 2017. A Multi Scale Convolutional Neural Network Architecture For Music Auto-Tagging, The 7th International Conference on Soft Computing for Problem Solving (accepted)
- Tanmaya Shekhar Dabral, N. Madurai Meenachi, Vidya Sundararajan, M. Sai Baba. A Variant of the Particle Swarm Optimization for Ontology Alignment, Proceedings of the 10th National Conference on Recent Advances in Information Technology, 2016

Teaching

- **Teaching Assistant**: Discrete Structures in Computer Science (CSF222), Oct 2017 - Dec 2017

Awards and Certificates

- Merit Scholarship from BITS for every semester till date.
- Qualified for the Scholarship for Higher Education under the INSPIRE program by the Ministry of Science and Technology, India, by being in the top 1% of the School Board.
- Was awarded the National Talent Search Scholarship which has a selection rate of under 1%.
- **GRE®(Aug 2017):** Q: 170, V: 169, AWA: 4.0
- **TOEFL®(Sept 2017):** Reading: 30, Writing: 30, Listening: 30, Speaking: 28

Extra-curriculars

- Senior Member, SHADES the Fine Arts Club of BPHC (2014 - Present)
- Creative writing and blogging: www.polyartfactory.com