Chandan Reddy Akiti

State College, University Park, PA 16803

✉ cra5302@psu.edu +1 (616) 216-7673

EDUCATION

Pennsylvania State University — *University Park, PA*
Master of Science in Computer Science & Engineering — *Aug. 2019 – May. 2021*
Selected courses: Large-Scale Machine Learning, Deep Learning, Numerical Linear Algebra
Upcoming Courses: Distributed Systems, Pattern Recognition, Computer Vision

Indian Institute of Technology, Madras — *Chennai, India*
Bachelors of Technology in Computer Science & Engineering — *Aug. 2011 – Apr. 2015*
Awarded Full-Tuition Scholarship

SKILLS & OTHERS

Programming: Python, C++, Java, C, Javascript, Bash, SQL
Tools: Tensorflow, PyTorch, Scikit-learn, AWS, Node.js, REST, Apache Thrift, Apache Kafka, Apache Cassandra
Machine Learning: Convex Optimization, Distributed Optimization, Concentration and Subspace Embedding.
Competitive Coding: Codechef - Div 1

EXPERIENCE

Samsung R&D Institute — *Delhi, India*
Project: Healthcare AI (Research) — *Jan. 2018 – Jul. 2019*
- Used temporal principle component anlysis of skin RoI pixels to estimate rPPG (correlated with ECG) signals
- Applied machine learning for classification of heart diseases from rPPG signals
- Research is collaborated with Council of Scientific & Industrial Research, Chennai, India.

Project: Clothing Recognition and Retrieval — *Apr. 2017 – Dec. 2017*
- Implemented Faster R-CNN, Mask R-CNN for clothing object recognition and segmentation to achieve 60% mAP
- Applied similarity learning via Siamese neural network for clothing retrival task to achieve 30% top-20 accuracy.
- Integrated fashion recommendation system in Samsung's TV content recognition system backend in AWS.

Project: Content Recognition — *Jul. 2015 – Mar. 2017*
- Optimized content recognition backend code written in Google's V8 JavaScript Engine. Achieved a speedup of 2.5x.
- Developed full stack of content recognition analytics dashboard with robust and scalable backend.
- Implemented a robust Kafka-Cassandra data pipeline module in Node.js environment handling 100k traffic

PROJECTS

[Research Support] Privacy Disclosure in Spoken Dialogue Systems using Deep Learning
Guide: Dr. Sarah Rajtmajer & Dr. Anna Squicciarini — *Penn State, Sep. 2019 – Present.*
- Implementing a novel multimodal approach for the classification of self-disclosure and supportiveness
- Working on natural language generation for driving self-disclosure in spoken dialogue systems

[Course Project] Sequence Image Captioning
Guide: Dr. C. Lee Gyles — *Penn State, Sep. 2019 – Present.*
- Working on sequence image captioning using graph convolution networks
- Extension to prior research on sequence image captioning using VIST dataset from Microsoft Research

[Course Project] Random Sketching for Deep Neural Network compression
Guide: Dr. Mehrdad Mahdavi — *Penn State, Sep. 2019 – Present.*
- Reviewing subspace embedding methods and its theoretical guarantees for hashing based neural network compression.

SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank 263 (99.96 percentile) in Indian Institute of Technology - Joint Entrance Examination 2011
- Placed in National Top 1% in Indian National Astronomy Olympiad 2010, Physics Olympiad 2010 & Chemistry Olympiad 2010
- Selected for Indian National Junior Science Olympiad camp, 2008, for which only 33 students were selected from the country
- Selected for the 2nd round of South-Indian Mathematical Olympiad 2010