
EMPLOYMENT

Research Assistant	Temple University	Fall 2016 - Present
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Data Science Lab, CIS Department

- 6% improvement achieved in patient's next visit prediction on real dataset (MIMIC III) by developing low dimensional representations of both medical codes and note words in same vector space.
- Reduced human labor to find similar medical codes in patient health records by building an interactive tool and applying ML algorithms in code analysis.
- Found anomaly in student's behavior analysis on autism therapy through data mining approaches.

Teaching Assistant	Temple University	Fall 2016 – Spring 2018
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- Courses: CIS 3515 Mobile Development; CIS 1068 Programming Java.
- Instructed in lab classes, designed and graded programming assignments. (20+ students)

Lecturer	BRAC University	Spring 2015 – Summer 2016
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- Courses: CSE 470 Software Engineering; CSE 331 Automata Theory.
- Created and taught courses, oversaw semester long projects, graded projects and exams. (35+ students)

EDUCATION

Philadelphia, PA	Temple University	Fall 2016 – Present
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- Ph.D. in Computer and Information Sciences.
- Research topic: Developing machine learning models for analyzing medical health records.
- Selected Graduate Coursework: Machine Learning; Computer Vision; Algorithm; Programming Technique.

Dhaka, Bangladesh	University of Dhaka	Spring 2010 – Fall 2015
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- M.Sc. in Computer Science and Engineering, December 2015.
- Thesis "An efficient approach to mine flexible periodic patterns in time series data" is cited 15+ times.
- Selected Graduate Coursework: Knowledge Based System; Cloud Computing; Information Security.
- B.Sc. in Computer Science and Engineering, January 2014.
- Lead my team in winning national hackathon competition among 150+ teams, 2014, Bangladesh.

TECHNICAL EXPERIENCE

Projects

- **Kaggle project:** 67% accuracy achieved in Kaggle Multiclass Hotel Image Classification problem by modifying DenseNet architecture on 40K image data. Python, Keras, Pytorch.
- **Secret treasure game:** Developed an educational game for Android devices where user can solve math puzzles, word problems and learn word spelling in an exciting game environment. Java, AndEngine.

Languages and Technologies

- Python (Proficient); C (skilled); Java (skilled); JavaScript (Experience).
- Keras, Panda, Pytorch, Anaconda, Eclipse, NetBeans, Codeigniter (MVC framework).

Selected Publications

- T. Bai, A. K. Chanda, S. Vucetic, B. L. Egleston. "Joint learning of representations of medical concepts and words from EHR data". In the IEEE BIBM conference, Publisher: IEEE, vol. 61, pp. 764-769, 2017.
- A. K. Chanda, C. Farhan, Carson K Leung and et al. "A new framework for mining weighted periodic patterns in time series databases". Journal of Expert Systems with Applications (ESA), Publisher: Elsevier, vol 79, 2016.

Additional Activities

- Completed all 5 required courses in Deep Learning Specialization course of Prof. Andrew Ng (50 hours).