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Asoke Datta

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EDUCATION

1) University of California, Merced

PhD in Computer Science and Electrical Engineering

GPA: 3.84/4.0

Ongoing

2) Leading University, Sylhet, Bangladesh

Bachelor of Science, Computer Science and Engineering

GPA: 3.37/4.0

2010 - 2013

RECENT COURSES

- Algorithm Design and Analysis • Advance Algorithms • Database System Implementation • Parallel Computing • Computer Vision
- Advance Topic in Intelligent System

Projects

1) Database Implementation

Spring 2019

- **Objective** : Implement database main components includes a) Catalog, b) Query Optimizer, c) Data Loader and d) Execution Engine
- **Tools** : **CPP, Lex, YACC** ; **Repo** : github.com/Asoke26/Database_Implementation
- **Result** : Full working database pipeline(syntax limited); input : query ;Output : result

2) Baseball Elimination

Fall 2019

- **Objective** : Find which teams have a chance to win Baseball league using MaxFlow Mincut Algorithm
- **Tools** : **CPP** ; **Repo** : github.com/Asoke26/Baseball-Elimination
- **Result** : Program successfully found the teams.

3) SOFC Approximation

Fall 2019

- **Objective** : Approximate and optimize Solid Oxide Fuel Cell simulation using ML model and parallelize model training using GPU.
- **Tools** : **Python, CPP, TensorFlow**, OpenFuelCell, Cantera. ; **Repo** : github.com/Asoke26/OpenFuelCell
- **Result** : Model accuracy 78 percent on synthetic data, runtime optimized by 98 percent

4) Autonomous Retail

Spring 2020

- **Objective** : Tracking misplaced items in an autonomous Retail store which includes a) Event Detection b) Object Recognition
- **Tools** : **Python, JavaScript**, ML Model : PoseNet, Hogg, Method : Image Subtraction; **Repo** : <https://tinyurl.com/y2mtrgd3>
- **Result** : Partial implementation; PoseNet accuracy 90 percent(20 cases); Image Classifier 70 percent accuracy (30 cases)

EXPERIENCE

1) University Of California, Merced

Research Assistant

Aug, 2018 – Present

- Working on finding efficient techniques to optimize database query.
- Developed models and scripts to generate synthetic workload and manipulate benchmark data based on experimental need.
- Currently working on understanding the correlation between DB query execution and optimization.

2) University of California, Merced

Teaching Assistant (Database Systems)

Aug, 2018 - Present

- Conducted guest lecture and labs in class of Max. 120 students.
- Supervise design and development of student class projects.
- Evaluate Student Performance and share feedback.

3) Accenture , Dhaka, Bangladesh

System Engineer

Oct, 2014 – Nov, 2017

- Deploy and manage physical and virtual server environment.
- Develop methodology for automation of manual operations.
- Problem troubleshooting, service delivery as per SLA and documentation of major events.

PROFESSIONAL ACTIVITIES

- Reviewer, Scientific and Statistical Database Management Conference [SSDBM 19,20]

CONFERENCE APPEARANCES

- Yesdaulet Izenov, **Asoke Datta**, Jun Hyung Shin, Florin Rusu. Sketch-based Join Order Selection for In-Memory Database Systems . Paper presented at: NorCal DB 2019. Northern California Database Meetup; 2019 May 1, Sanfrancisco, California

INTERESTS AND ACTIVITIES

- Idea Generation • Problem Solving • Exploring Extreme Sports • Badminton • Board Games • Explore Nature • Making Friends
- Learning about different culture, food ..