

ARINDAM NANDI

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EDUCATION

University at Buffalo, the State University of New York

Master of Science, Computer Science and Engineering, May 2016

GPA – 4.0 / 4.0

West Bengal University of Technology, Kolkata, India

Bachelor of Technology, Computer Science and Engineering, May 2014

GPA – 8.2 / 10

RESEARCH EXPERIENCE

- Working on Mimir, a probabilistic database based on C-Tables and probabilistic graphical models
- Investigating solutions to make Mimir scalable, addressing joins and serializing models

WORK EXPERIENCE

Research Assistant, University at Buffalo, summer 2015 - present

- Implemented new lenses, web backend, web user interface and fixed bugs on Mimir
- Presented demos of Mimir to Oracle representatives
- Technologies used - Scala with the Play Web Framework

TECHNICAL SKILLS

- Languages - Java, C, Scala, Python, SQL, C++, JavaScript, JQuery, HTML5, CSS3, MATLAB
- Web | Android | *nix | Git version control | Eclipse | NetBeans | GDB

ACADEMIC PROJECTS

SQL Query Evaluator, spring 2015

- Led a team of three to build a SQL query evaluator in Java with query rewrites, indexing and cost-based optimization for time constraints and out of memory operations for space constraints
- Top of class leaderboard in many of standardized timed tests

OS161 kernel development, spring 2015

- Built synchronization primitives to support kernel level multithreading, implemented process management and file-system related system calls and a virtual memory subsystem from scratch with support for page swapping
- One of few teams to pass all test cases perfectly

Distributed Systems Android apps, spring 2015

- Built a distributed group messaging android app that preserves FIFO-total message ordering even in cases of instance crashes
- Implemented a distributed key-value storage similar to Amazon Dynamo
- Chain data replication to preserve data consistency, load sharing based on consistent hashing, support for random node joins and disconnects, simulating fail-recover model
- Passed all evaluation criteria and test cases with bonus points

Machine learning, fall 2014

- Used a real-world dataset to train a regression model to predict query to document relevance ratings
- Built a handwritten digit recognizer using logistic regression, neural networks and support vector machine classification with training data of 15,000 images
- Achieved 98.4% accuracy on test set of 1500 images

PERSONAL PROJECTS

Givengi – Buffalo Startup Weekend, fall 2014

Part of a team that worked on Givengi, a social media app for economic upliftment. Built the demo website along with a partner.