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Mayank Jain

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Employment

Research Assistant	Binghamton University	Summer 2017; Fall 2017

Epistasis Detection in Genome
- Designed and coded neural networks on common fly genome data to find gene(s) responsible for particular trait and to find epistasis in fly.
- Implemented Feed Neural Network, Random forest.

Teaching Assistant	Binghamton University	Spring 2017; Fall 2017

- Course: Advanced Topics in OOP.
- Created testing platform being used at Binghamton University to grade assignments at submission.

Senior Software Developer	Amdocs, Pune, India	July 2012 - July 2016

- Worked on billing product in Agile Scrum using TDD approach. The product was used by Telefonica, Argentina, Peru and Chile.
- Designed, coded and tested various taxation, online charging, discount engine processes and daemons in C++, SQL, XML. Quality of code eventually reduced regression time by $\sim$20% and increased team revenue by $\sim$4%.
- Led a Scrum team of 5 people in designing, developing and delivering planned items. The number of defects dropped by 38% for development items led by me.
- Worked on-site at Telefonica, Argentina Office at Buenos Aires for 3 months on Production environment. I was instrumental in solving defects and improving performance of the system.

Education

Binghamton, NY	Binghamton University	Fall 2016 – May 2018 (Expected)

- M.S. in Computer Science, May 2018. **GPA: 4.0**
- Coursework: Advanced Topics in OOP, Introduction to Machine Learning, Operating Systems, Algorithms, Systems Programming, Regression I.
- Online Courses: Probabilistic Graphical Models - I on Coursera offered by Stanford University.

Pune, India	Pune University	Aug. 2008 – May 2012

- B.E. in Computer Science, May 2012. **First class with Distinction**
- Coursework: Neural Networks, Artificial Intelligence, Data Structures, Embedded Systems, Algorithms.

Technical Experience

Projects
- **Pump It Up - Data Mining the water table** (2017): Analyzed data from various Tanzania and Nigeria water points to predict factors affecting availability of water in water point. This was an online competition hosted by DrivenData. I implemented XGBoost, Random Forest, Feed Forward Network for this. My rank in competition was 2nd among 3647 teams. Python, TensorFlow, Keras.
- **Anomaly Detection In Water Flow** (2017): Implemented RNN, LSTM to detect irregular flow in water aimed at finding leakage in water pipes. Python, TensorFlow, Keras.
- **Bayes Nets for Genetic Inheritance** (2017): Implemented Bayesian Network to predict few phenotypes based on family genetic inheritance model. Matlab.
- **Malloc Utility Implementation** (2017): Implemented malloc like utility using sbrk system call. C.
- **C++ Standard Library Map Implementation** (2016): Implemented Standard template library std::map with skiplist data structure. The Map was capable of De-randomization, Locality and dynamic height. C++.
- **Sanjaya: India Narrates** (2012): Aim of this research project was to convert vernacular books into audio format using crowdsourcing and various NLP/Speech utilities. Developed a website for the Crowd Sourcing part; implemented Speech Processing algorithms. Python.

Additional Experience and Awards
- **Dr. A.K. Pathak Award (Apr. 2012):** Awarded for best and innovative final year project, out of 84 projects.
- **Top Contributor of Project:** Got award for exceptional contribution in project at Amdocs, Pune.

Languages and Technologies
- C++; C; R; Python; SQL; XML; TensorFlow; Keras; Git; Perforce; Weka