Subhankar Ghosh

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Education

- **University of Illinois at Urbana-Champaign**
  Master of Science in Statistics: Analytics Concentration — *Aug 2017 – May 2019*
- **National Institute of Technology, Rourkela, India** — GPA: (8.95/10.0)
  Bachelor of Technology in Computer Science & Engineering — *Aug 2011 – May 2015*

Areas of Interest

- Machine Learning, Deep Learning, Statistical Learning, Data Analytics

Computer Skills

- C++, Python(SciPy, NumPy, NLTK, Matplotlib), R, SQL, Tensorflow, NoSQL, SAS

Experience

- **Microsoft R&D India Pvt Ltd** — Hyderabad, India
  Software Engineer — *Jun 2015 - Jul 2017*
  - **Rewards Predictor**: Built a system that predicted employee rewards by analyzing feedback text
    - Achieved overall accuracy of 87%, being used in Rewards department
    - Used: Python, DeepLearning, Tensorflow, Keras, C#, NoSQL
  - **Azure Virtual Architect**: Recommended optimal cloud technology for a given software system requirement
    - Recommendations were based on cost, performance and efficiency of cloud technologies
    - Crawled Azure Docs to build dataset of cloud technologies and used cosine similarity to map input with the technologies
    - Used: NLTK in Python, NoSQL, javascript, AzureML
  - **Voucher Validation and Redemption Project**: Worked on service layer framework in VVR of Microsoft
    - Used: C#, SQL, javascript
- **Microsoft R&D India Pvt Ltd** — Hyderabad, India
  Software Engineer Intern — *May 2014 - Jul 2014*
  - **NEO**: Built New Employee Onboarding system that helped new employees of any organization to onboard smoothly

Projects

- **Curb Domestic Violence**: Solved problem of detecting domestic violence automatically in real time
  - Used deeplearning to analyze text after speech to text conversion and predicted domestic violence
  - Trained regression model on decibel level of voice and used an ensemble of the two models
  - Research is being done by Innovation hub of Microsoft India to increase the achieved precision score of 0.47
- **Lets Envisage**: Built a system to automatically assign programming tasks to appropriate person based on skill level
  - Predicted time required to complete a programming task based on complexity of the task
  - Collected employee and task data from VSTS (a distributed version control system of Microsoft)
  - Acheived an RMSE of 4.5hours. *Used*: Regression Analysis, C#, AzureML, R
- **Characterization of mammograms for detection of breast cancer**: Bachelor level research project to detect breast cancer from mammograms
  - Used ensembled classification techniques and achieved a precision score of 0.74

Presentations, Publication and Patent

- **Presenter**: S. Ghosh, S. Debnath. (Dec 2015). *Lets Envisage - A sprint planning tool for efficient task allocation.* Paper presented at Microsoft Machine Learning, Analytics & Data Science Conference, Redmond, 2015
- **Presenter**: S. Ghosh, S. Debnath. (Jun 2016). *Curb Domestic Violence - A system aimed to eradicate domestic violence.* Paper presented at Microsoft Machine Learning, Analytics & Data Science Conference, Redmond, 2016
- **Patent**: S. Ghosh, S. Debnath. (Nov 2016). *EFFICIENT TASK PLANNING USING PAST PERFORMANCE.* Status: Pending. Filed with United States Patent and Trademark Office

Achievements and Social Service

- **IT Star Award, Microsoft R&D India**: 2016
- **Semifinalist at ACM International Collegiate Programming Contest Asia Region**: 2014
- **Volunteering**: Teacher at SOS Children's Village an NGO for underpriviledged orphan children. Volunteered in Project 511 for better quality education of homeless school children