# Mahendra Maiti

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## Education

**Master of Science, UNIVERSITY OF MINNESOTA, TWIN CITIES**
**Major: Computer Science** **GPA: 3.78/4.0** **MAY 2019 (Expected)**
**Courses:** Distributed Computing, Data Mining, DB Systems, Recommender Systems, Spatial Computing.

**Bachelor of Technology, NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR, INDIA**
**Major: Computer Science and Engineering** **GPA: 9.07/10.0** **MAY 2017**
**Courses:** Data Structures and Algorithms, OOP, DBMS, Software Engineering, Pattern Recognition.

## Skills

**Languages:** C++, Python, Java, C, LISP, SQL, TypeScript, JavaScript, MATLAB, C#, HTML, CSS
**Frameworks/ Tools:** Angular, Lenskit, JUnit, Flask, Django, Sikuli, Git, JIRA, ZooKeeper
**Technologies:** Unity, Unreal, Hive, Hadoop, Kafka
**Others:** REST, Agile Scrum, AWS, Azure, Redis, Docker
**Technical Areas:** Software Engineering, Database Systems, Data Mining

## Experience

**Software Developer Intern, HOONUIT, MN, USA** **Since 09/2018**
Implemented new features in SaaS platform using Django, and Angular. Developed internal dashboards.

**Software Developer Intern, SMITHS MEDICAL, MN, USA** **05/2018 - 08/2018**
Developed a utility application that automates screenshot capture process on infusion pumps using in-house framework. Developed tool reduces operating time costs by at least 60% and can further be used for test automation and localization purposes. (C++, Python)

**Software Developer Intern, CSIR-CMERI, WB, INDIA** **05/2016 - 06/2016**
Synthesized Rician Noise in MRI using C++ and Python in OpenCV. Implemented denoising techniques such as Hybrid KSL, NLM and compared their performance against Rician Noise. (C++, Python, OpenCV)

## Projects

**IoT data synchronization using edge repositories:** Designed a system for efficient synchronization of IoT streamed data points with cloud. Edge repositories act as a ubiquitous middle layer, performing the tasks of device data filtration and subsequent synchronization. Developed system facilitates efficient utilization of network bandwidth and compute heterogeneity. (Python, Go, AWS lambda, Amazon S3, Azure Iot, Redis)
**Game bot using Reinforcement Learning:** Implemented a game bot using a model-free reinforcement learning technique called Q-learning. (Python)
**Recommender System for Movies:** Implemented content-based filtering, nearest neighbor collaborative filtering, and summary statistics algorithms for recommending movies based on user and movie datasets, using Lenskit toolkit. (Java, Lenskit)
**Stroke rehabilitation using games in Virtual Reality:** Implemented a stroke rehabilitation game for upper limb motor training of stroke patients. (C#, C++, Unity3D)
**Energy efficient routing in Mobile Ad hoc networks (MANETS):** Developed novel routing techniques for data offloading in MANETs using location-aware, teaching-learning based optimizations. Proposed approaches prolong network lifetime through increased fairness in terms of distribution of workload. (C++, Java)