# Abhijeet Mohanty

Email : amohan31@uic.edu
Mobile : +1-312-468-1795
GitHub link : jeet1995


## Education

- **University of Illinois at Chicago** — Chicago, IL
  *Master of Science in Computer Science with Thesis, GPA: 3.8/4.0* — *Expected - May 2021*
  Relevant Coursework : Cloud computing, Computer Algorithms, Object Oriented Languages, Software development for Mobile Platforms
- **National Institute of Technology, Karnataka** — Surathkal, KA, India
  *Bachelor of Technology in Computer Science and Engineering* — *July 2013 – May 2017*
  Relevant Coursework : Operating Systems, Computer Networks, Distributed Database Systems

## Programming Skills

- **Languages**: Java, Scala, Python, Typescript, JavaScript, HTML, CSS, Bash
- **Tools, Frameworks and Libraries**: Spring, JUnit, FunSuite, JBoss, Angular 4, PReact, Apache Hadoop, Apache Spark
- **Containerization and Build tools**: Maven, Gradle, Simple Build Tool (SBT), Docker, Kubernetes
- **OS**: MacOS Mojave (UNIX), AIX (UNIX), Ubuntu (Linux), Windows 10, Android, CentOS (Linux)
- **DBMS**: MySQL, PostgreSQL
- **Version control system**: Git

## Experience

- **University of Illinois at Chicago** — Chicago, IL, USA
  *Graduate Student Researcher, Advisor : Dr. Mark Grechanik* — *May 2020 - Present*
  - Developing a pipeline to build an ontology of research papers using probabilistic graphical models and functional programming constructs.
- **Societe Generale Global Solutions Center** — Bangalore, India
  *Specialist Software Engineer* — *Aug 2017 - Jul 2019*
  - Developed a user interface for Orchestrator using **Angular 4** with **TypeScript**, an in-house workflow management tool which allows end-users to configure, schedule and monitor batch applications.
  - Wrote a **Spring based RESTful client** for the data acquisition layer for COPS, a credit risk calculator, which eliminated the need to load files at a centralized location thereby reducing the *SLA by 4 hours and code debt by 5 %*.
  - Wrote the purge module using **Spring Data JPA** to delete historical data stored in the *Oracle DB or as file based resources*. This reduced the production team man hours by around *2 hours per month*.
  - Led a team of 4 software engineers and 2 business analysts for a migration task involving RESTful web services making use of **Spring WebFlux**.

## Software Projects

- **Publication data analyzer**: Built a pipeline of **map-reduce** jobs to analyze DBLP data using **Scala, Apache Hadoop, AWS EMR and AWS S3.**
- **Stock trader**: Developed a **Spark** job which predicts the losses/profits for a given portfolio after sampling over a given trading window using **Scala, Alpha Vantage API, AWS EMR and AWS S3.**
- **Akka based cloud simulator**: Developed an overlay network simulation which uses the *chord algorithm* for operations such as a node entering and leaving the network along with loading and lookup of data. Made use of **Akka HTTP** to perform these operations using REST endpoints.
- **Named entity ontology builder**: Built an ontology using shallow parsing and named entity recognition from newspaper articles using **Python's Owl Ready, NLTK and Goose libraries.**
- **External Linux command executor**: Developed an external command execution framework using Scala for Linux commands where provision is made for command options or pipes using sealed traits, type aliases and implicits for type checking when building composable functions.