

# AKARSH BALASUBRAMANYAM

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## EDUCATION

### University of Illinois at Chicago – GPA: 4.0/4.0

Chicago, IL / August 2019 – May 2021

Master of Science in Computer Science

Relevant Courses: Computer Algorithms, Introduction to Data Science, Introduction to Machine Learning, Neural Networks, Information Retrieval, Deep Learning for NLP, Visual Data Science

### BMS Institute of Technology and Management – GPA: 79.56%

India / August 2013 – June 2017

Bachelor of Engineering in Computer Science

## SKILLS

Programming Languages:	Python, JavaScript, TypeScript, R, Java, C++
Technologies and Frameworks:	Node.js, Angular, Flask, Hadoop, Spark, Git, Bitbucket, TestCafe, Docker, Informatica Power Center
Databases:	Oracle SQL, MYSQL, PostgreSQL, MongoDB
Data Analysis and Visualization:	Pandas, TensorFlow, Scikit-Learn, Spacy, Seaborn, Bokeh, Tableau, Vis.js, D3.js, Three.js
Machine Learning:	Regression, SVM, Decision Trees, Random Forest, XGBoost, Neural Nets

## PROFESSIONAL EXPERIENCE

### Intern, Software Development- Ensono LP (Angular Developer)

Downers Grove, Illinois / June 2020 – August 2020

- Used Angular framework to develop Single Page Application (Agile In A Box) to access and display data from JIRA
- Visualized JIRA stories and its dependencies using Vis.js
- Worked with TestCafe in end-to-end testing and Jasmine for unit testing angular modules with 70% code coverage

### Software Engineer – Dell Technologies (ETL Developer)

Bengaluru , India / July 2017 – July 2019

- Analyzed and Maintained Customer Data in the Production Environment by resolving Data and Hierarchy issues that would occur on a daily basis
- Designed and Developed mappings and transformations using Informatica PowerCenter to extract data from multiple sources and perform Data Warehousing at a central MDM repository
- Developed an Account Dashboard - a tool encompassing operational KPI's and SLA's for Accounts transactions using ETL and SQL technologies
- Lead and managed a Level-2 team and trained them to support the Master Data Management application

### Under-Graduate Intern - Bharath Sanchar Nigam Limited

Bengaluru , India / Jan 2016 – May 2016

- Developed a tool using Python that supports automated Broadband provision and modification; reduced manual work by ~50%

## PROJECTS

### Image Captioning using Deep Neural Nets [Python, Tensorflow, imageNet, LSTM's]

October 2020

- Generating image captions using Convolutional Neural Networks and Sequence Models and evaluating performance metrics using BLEU scores

### Identifying the right Episode of Care using Visualization [identifying-episode-of-care.herokuapp.com]

October 2020

- Analyze the right Episode of Care for a given condition by visualizing the sequence of procedures using D3.js and Cytoscape.js

### Automatic Text Summarization and Ranking of email corpus [Python, NetworkX, Spacy, Sklearn]

May 2020

- Ranking of email corpus using Information Retrieval and NLP techniques based on frequently used keywords that describe the priority of the email (ASAP, Immediate, Critical)
- Summarized top ranked emails using Page Ranking algorithm

### Analysis of Crime Data (City of Chicago) [Python, Pandas, Sklearn, Seaborn]

November 2019

- Analyze and predict the type of crime that may occur in the city of Chicago and dictate the possibility of criminal being arrested.
- Achieved an accuracy of 86% predicting the probability of criminal being arrested and a 60% accuracy for the type of crime

### Tag Prediction for Stack Overflow Questions [Python, Pandas, Sklearn, Seaborn]

November 2019

- Predict tags for the questions posted on Stack Overflow and compare performance metrics using different Machine Learning models like Multinomial Bayes, Logistic Regression, Support Vector Machines and Neural Nets

### Intrusion Detection using Ad-hoc Communication Networks [Python, Raspberry Pi, RFID, OpenCV]

June 2017

- A cost-effective, autonomous security system designed using Raspberry Pi and Arduino
- Enhanced two level security using Radio Frequency Identification and Image Recognition