

# RUCHIR CHUGH

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## EDUCATION

### University of Texas at Arlington

Aug 2018 – May 2020

Master of Science in Computer Science - Thesis, **GPA: 4.0**

Related coursework: Algorithms, Data Mining, Data Analysis & Modelling, Machine Learning, Computer Vision, Neural Networks

### Guru Gobind Singh Indraprastha University, New Delhi

Jul 2013 – Jul 2017

Bachelor of Technology in Information Technology

Related coursework: Object Oriented Programming, Database Management, Java, Operating System, Web Development

## SKILL SET

**Data Science-** Data Collection & Visualization, Probability, Inferential Statistics, Supervised & Unsupervised Learning, Deep Learning

**Programming Languages/Libraries-** Python, Java/J2EE, NumPy, C, C++, PHP, Matlab, TensorFlow, Scikit-Learn, Keras

**Web Technologies-** HTML5, CSS3, JavaScript, jQuery, XML, Visualforce, XAMPP, React, MVC, Angular, Bootstrap, REST, MySQL, RDBMS, SQL, PLSQL

**Software/IDE-** Jupyter Notebook, Anaconda, Eclipse, Visual Studio, NetBeans, PyCharm, Cascade Server CMS, Codeignitor, Git

## WORK EXPERIENCE

### The University of Texas at Arlington

Aug 2019 – Present

#### Graduate Teaching Assistant

- Assisted a batch of 50 students with Data Analysis and Modelling class. Helped explaining the concepts like **data visualization, sampling, probability** and understanding **distributions**.

### The University of Texas at Arlington

Jun 2019 – Aug 2019

#### Web Developer

- Responsible for developing website for 5 departments which comes under College of Science. (**Cascade CMS, Php**)
- The responsive websites were used by **5000+** students in the department.

### Capgemini, Pune, India

Oct 2017 – Jul 2018

#### Software Engineer

- Developed and Tested the new employment application for HR department of Morgan Stanley which made their system faster by **20%**. (**Salesforce, Apex, Core Java, JSP, Servlets, JPA Hibernate, Spring, Angular JS**)
- Made a web application with functionalities such as multi-user login, ticket reservation & data validation.

### Defence Research and Development Organisation (DRDO), Delhi, India

Jun 2016 – Jul 2016

#### Intern

- Built a web application based on **MVC architecture** which **automated** the vehicle requisition system. It significantly **reduced** the number of resources of the department and increased the **processing speed** from days to hours.

## ACADEMIC PROJECTS

### Movie Search and Classification Engine

Aug 2019 – Dec 2019

- Developed **Flask** application for Search Engine which looks for relevant match with free text as an input using Term Frequency of each token and Inverse Document Frequency of each data row. Naïve-Bayes classifier was used to predict the top genre of the movie given any random plot with the accuracy of **53%** with a test split of **20%**.

### Recommender System

Aug 2019 – Dec 2019

- The system was based on **Collaborative Filtering**. On getting the keywords as an input used to predict the genre and top results of the movies based on the user ratings and views with the accuracy of **73%**. (Prior & Posterior Probability)

### Computer Vision

Jan 2019 – May 2019

- Worked on frame differencing, connected components, bounding boxes, directional derivatives and gradients. Also implemented face detector and Worked on camera calibration and stereo detection.

### Neural Network

Jan 2019 – May 2019

- Worked on Learning curves, Regularization and model selection using keras library. Developed a fully connected feed forward network and trained an advance architecture (RNN) for the same task.
- Implemented Linear Regression, Logistic Regression, Decision Tree, K-Nearest Neighbor, Dynamic Time Warping (DTW) and K-Means.

## CERTIFICATIONS

- Oracle Certified Associate, Java SE 7 Programmer
- Deep Learning Specialization (Coursera)

Jan 2018

Jul 2019

## EXTRA-CURRICULAR ACTIVITIES

- Computer Science **Tutor** at IDEAS Center.
- Regular participation in **hackathons**.
- Webmaster** of IEEE Student Branch at Guru Gobind Singh Indraprastha University.
- Website Team Head** in various inter college events.