

# RUCHIR CHUGH

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## EDUCATION

- Aug 2018 – May 2020  
Master of Science in Computer Science,  
**University of Texas at Arlington, GPA: 4.0**
- Jul 2013 – Jul 2017  
Bachelor of Technology in Information Technology,  
**Guru Gobind Singh Indraprastha University, New Delhi**

## SKILL SET

**OS-** Windows, Ubuntu, MacOS, iOS, Android  
**Languages-** C, C++, Java/J2EE, Python, PHP, Matlab  
**DB-** MySQL, DBMS, RDBMS, SQL, PLSQL  
**WEB-** HTML5/CSS3, JavaScript, JQuery, Visualforce

## WORK EXPERIENCE

Aug 2019 – Present  
**The University of Texas**  
**Graduate Teaching Assistant**

- Assisting the professor evaluating the projects, assignments and exams for Data Analysis and Modelling Techniques class (CSE 5301)

Jun 2019 – Aug 2019  
**The University of Texas**  
**Web Developer**

- Worked as a full-stack developer for the college of science department.

Oct 2017 – Jul 2018  
**Capgemini, Pune, India**  
**Software Engineer**

- Developed and tested the application in **Salesforce** for HR department of Morgan Stanley.
- Trained in **Java** (Core Java, JSP, Servlets, JPA, Hibernate, Spring, Angular JS).
- Trained in **Capital Markets** (IPO, Stock Exchange, Trading, Wealth Management, Risk Management).

Jun 2016 – Jul 2016  
**Laser Science And Technology Center, Defence Research and Development Organisation (DRDO), Government of India, New Delhi**  
**Intern**  
**Online Vehicle Requisition System**  
Built a web application based on MVC architecture which used to automate the vehicle requisition system within the organization.

## CERTIFICATIONS

Oracle Certified Associate, Java SE 7 Programmer  
Neural Networks and Deep Learning (Coursera)

## ACADEMIC PROJECTS

### Movie search and classification engine

- Developed a text search engine for a movie dataset with 100k rows. Pre-processed the data using tokenizing, stemming to remove the stop words. Further vectorizing and using TF-IDF and cosine similarity to fetch the results from free text.
- Implemented a classifier using KNN algorithm based on the plot of the movie to predict the best possible genre.

### Computer Vision

- Worked on frame differencing, connected components, bounding boxes, color segmentation, directional derivatives and gradients.
- Implemented Hough transformation, template search and nearest neighbor classification using Euclidean and Chamfer distance.
- Implemented face detector and calculated true positives and false negatives based on the ground truth.

### Machine Learning

- Implemented various machine learning algorithms using MATLAB like Linear Regression, Logistic Regression, Decision Tree, Principal Component Analysis (PCA), K-Nearest Neighbor, Dynamic Time Warping (DTW) and K-Means.

### Neural Network

- Implemented Perceptron Learning Rule, Linear and Logistic regression.
- Also 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.

### Pet Store

#### Web Data Management Project

- Developed a fully functional website in Php using CodeIgniter

### Online Review Manipulation Detection Major Project

- Detected the spam reviews based on several different parameters in the application using .NET framework.
- Developed the logic of the program and Led the team of four people.

## EXTRA-CURRICULAR ACTIVITIES

- Computer Science **Tutor** at UTA.
- Participated in various hackathons.
- Webmaster** of IEEE Student Branch.
- Website Team Head** in various college events.