

# YADHUKRISHNAN PANKAJAKSHAN

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## EDUCATION

### Northeastern University

Master of Science in Computer Science

Sep 2023 - May 2025 (expected)

San Jose, California

### Anna University

Bachelor of Engineering in Computer Science and Engineering

Aug 2017 - May 2021

Chennai, India

## RELEVANT COURSEWORK

- \* Algorithms
- \* Data Mining
- \* Engineering Mathematics
- \* Database Management
- \* Data Representation
- \* Big Data Analytics
- \* Statistics & Probability
- \* Computation Theory
- \* Data Management
- \* Artificial Intelligence
- \* Machine Learning
- \* Data structures

## SKILLS

- \* **Programming:** Python, R, SQL, NoSQL, C, C++, Ruby, Javascript, Java
- \* **Frameworks:** tensorflow, scikit-learn, pytorch
- \* **Artificial Intelligence:** neural networks, regression modelling, computer vision, natural language processing
- \* **Data Science:** mining, scraping, wrangling, modelling, charting & plotting

## WORK EXPERIENCE

### Software Development Engineer - Barclays

Chennai, Tamil Nadu, India

Sep 2021 - Aug 2023

- **[JCL, COBOL]:** Automated testing for external synchronization programs helping **save over \$50,000 annually**.
- **[MERN]:** Developed a number of improvements for a DevOps application by **more than 1000 peers**.
- **[Javascript, Jenkins]:** **Streamlined 10+ processes** using deployment pipelines for internal usage.
- **[COBOL, JCL]:** Coded transaction marking algorithms that handles **over 10000 simultaneous users**.

## PROJECTS

### Digitalizing Handwritten Text using AI

CNN with CTC, RNN, OpenCV

Oct 2020 - Mar 2021

- \* **Assessed accuracy ratings** for models to fairly compare their effectiveness with multiple models.
- \* Innovated **RNN models with depths of over 20 layers** and CNN models for character recognition.
- \* Using internal test data, **reached 90% accuracy**. A subsequent discussion also covered scope for future improvements through improved training data and neural network analysis.

### Employability Rating System

Linear Regression, Python, Flask

Jan 2020 - Apr 2020

- \* Innovated a rating system for resumes weighing multiple factors achieving a **testing accuracy of nearly 78%**.
- \* Built the regression model using resume data from **1000+ resumes manually rated by peers and professors**.

### Collision Detection of Vehicles in Traffic

RNN, OpenCV, Object detection

Sep 2019 - Jan 2020

- \* Traffic camera footage and number plate scans of **more than 4,000 vehicles from more than 70 angles** were used to simulate collision detection using computer vision.
- \* Created a mobile app for law enforcement to track data, record traffic violations, and receive penalty and insurance claim notifications. The app was tested with **4+ camera feeds** to generate real-time response.

### Detecting pneumonia using chest X-Rays

CNN, Python, Flask

Sep 2019 - Jan 2020

- \* **Trained a CNN model with 5000+ images** of chest X-rays to detect pneumonia.
- \* Integrated the model with a simple flask application. Finished as **one of the top 20 submissions** in a national level hackathon.

## PROGRAMMING AND DEVELOPMENT

- \* [codechef.com \(kennyackerman\)](https://www.codechef.com/kennyackerman)
- \* [codingame.com](https://www.codingame.com)
- \* [coursera.com](https://www.coursera.com)
- \* [codeforces.com \(sunboy99\)](https://www.codeforces.com/sunboy99)
- \* [leetcode.com \(yk\\_2310\)](https://leetcode.com/yk_2310)
- \* [hackerrank.com \(yk-2310\)](https://www.hackerrank.com/yk-2310)