# RAHUL S. HOSKERI

*Merced, CALIFORNIA*

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## Education

**University of California, Merced**                                  *| 5200 N Lake Rd, Merced, CA 95343*

**M.S. in Electrical Engineering and Computer Science [GPA: 3.7/4.0]**

**Coursework:** Advance Algorithm Design and Analysis, Parallel Computing        *2019 - Present (2021)*

**Visvesvarya Technological University, India**                      *| MVJ College, Bengaluru,560067*

**Bachelor of Engineering in Computer Science and Engineering [GPA: 3.45/4.0 or 71%]**

**Coursework:** Design and Analysis of Algorithm, Data Structures, Unix and Shell Programming,        *2014 - 2018*

Object-Oriented Programming, Database Management Systems, Professional Ethics.

## Experience

**University of California, Merced**                                         *Merced, California-95340*

Teaching Assistant                                                                    *Jan 2020 - Present*

- Teaching assistant for Calculus course, which emphasizes applying calculus concepts for real world problems like approximation and optimization, helping me better understand the mathematical concepts used for machine learning.
- Responsible for tutoring, conducting quizzes and grading, which emphasises my group managing and coordinating skills.

**Wipro Technologies Ltd**                                           *Electronic city, Bengaluru,IN-560100*

Project Engineer                                                                        *Jul 2018 - Dec 2018*

- Worked for Marsh and McLennan insurance project analyzing the insurance report data using the SAP Business Objects to study the business growth and report to help make the business decsions.
- Implemented Python script to clean csv file and convert to excel file for better readability and reduced the manual effort that was used before.
- **Skills Used:** SAP Business Objects, Python scripting.

## Projects

**Optimizing HPC Application Using Neural Network**

**(`https://github.com/Rahul664/OpenFuelCell`)**

- **Challenge:** Reduce the computation time and improve performance of Solid oxide fuel cell application, which is a high performance computing (HPC) application used for solid oxide fuel cell simulation.
- **Action:** Used supervised Multi layer perceptron model to predict the output parameters for given input parameters trained on 100,000 data sets.
- **Result:** Successful in reducing the simulation time from 120 minutes to 1.7 minutes (approx), which increases performance by reducing the computational intensity.

**Baseball Elimination (`https://github.com/Rahul664/Baseball-Elimination`)**

- **Challenge:** Design an algorithm to predict the teams that will be eliminated or not if the point table at any instance of league is given.
- **Action:** Designed algorithm based on Edge disjoint path application Max Flow Min Cut algorithm which serves the best for this kind of scenario.
- **Result:** Successful in predicting the teams that are eliminated or not based on the given point standings in league which could benefit teams for making strategies for the remaining league .

**Handwritten Optical Character Recognition (`https://github.com/Rahul664/OCR`)**

- **Title:** "Recognize and Translate Tulu Kannada Characters to Classical Kannada Characters Using OCR."
- **Challenge:** No support provided in MATLAB software for Kannada character display. No existing model for translation of the dialect proposed with substantial accuracy.
- **Action:**Came up with the combination of Unicode in MATLAB to represent the Kannada characters for the translated Tulu characters.
- **Result:** Using the Cross-Correlation algorithm successfully created the MATLAB simulation for the optical character recognition and translation with accuracy of 82.85%.

**Facebook Messenger Weather Bot (`https://bit.ly/2xdBKl1`)**

- **Objective:** Create a messenger bot that can interact with user and collect the location data and fetch the weather for the chosen location.
- **Implementation:** Using the open weather map API for the weather information and with the help of PhP curl html request, response and chat fuel bot platform. I was able to achieve my goal to build my first bot.
- **Scope:**This bot could be integrated as a Amazon Alexa skill.

# Skills

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| **Programming** | Python, C/C++, Matlab, Java, Php, JavaScript |
| **Libraries** | numpy, scikit-learn |
| **Tools** | Teradata, SAP Business Objects |

# Certifications

2017    **"Programming and Data Structure and Algorithm using Python",** from Indian Institute of Technology, Madras (IITM) (NPTEL) Reg No: NPTEL17CS28S2190163

2016    **"Introduction to Modern Application Development"** , from Indian Institute of Technology, Madras (IITM) (Reg No: NPTEL16CS2323120133)

2018    **"Ethical Hacking workshop",** from Indian Institute of Technology, Madras (IITM)