# **BARATH KUMAR G**

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#### **EDUCATION**

**PSG College of Technology, Anna University** 

**Bachelor of Engineering in Computer Science and Engineering** 

Coimbatore, India July 2019 - May 2023

CPGA: 9.85/10.00, Department(CSE) rank: 1

• Coursework: Advanced Data Structures, Machine Learning, Distributed Computing, Operating Systems, Software Engineering, Database management Systems, Embedded Systems, Compiler Design

#### **INTERNSHIPS**

## **Samsung Research Institute**

Coimbatore, India

#### **Project Intern**

May 2021 - November 2021

- Worked as a part of the 'Samsung PRISM' program, alongside the IoT department of Samsung Research Institute, Bangalore
- Developed a novel machine learning model that makes intelligent decisions of whether to execute javascript compute units locally or remotely
- Achieved an accuracy of 97.1% in predicting the execution time of the compute units on multiple devices using a single model and an accuracy of 99% in making the correct offloading decision
- · Received a 'Certificate of Excellence' for the work done in solving the offload decision making problem

#### **PROJECTS**

## **Unifier Parsing Script using Machine Learning** | Python | Paper | Code

February 2022 - May 2022

- Spearheaded a team of 6 to overcome the issues associated with the primitive web scrapers such as being site-dependent and highly rigid to changes in the HTML template
- Used three independent machine learning models that recognise patterns in the position of the desired information in the webpage, its dimensions and the HTML tag enclosing it respectively
- By embedding the three models together, developed a site-independent machine learning model, that extracts key information from different product pages from a variety of e-retailers

#### Vaccine Drive Registration System | Java, Python, MySQL | Code

July 2021 - November 2021

- Developed an application to deploy an efficient inoculation appointment system
- Used concepts of database management systems and machine learning to effectively notify the users about the crowd at the vaccination centres

# Food Recipe Recommendation System | Python | Paper | Code

June 2021 - September 2021

- Studied various machine learning models such as KNN, SVD, and NMF and their accuracies in determining the ratings of users and recommending food recipes
- Developed a machine learning model that considers the PMI score between frequently occurring pair of ingredients in recipes and recommends novel healthier recipes based the recipes FSA score

## **TECHNICAL SKILLS**

- Programming Languages: Python, Java, C++, C, Javascript, Swift, HTML, CSS
- Platform Frameworks & Tools: Git, Flask, ReactJS, Xcode, Android Studio, Unity, Netbeans, Arduino
- Machine Learning Frameworks: Keras, scikit-learn

## **ACHIEVEMENTS AND PARTICIPATION**

- Joint Secretary of the Computer Science Engineering Association at PSG College of Technology, responsible for hosting hosting events such as alumni seminars and hackathons, August 2021 July 2022
- Hosted competitive coding contests for fellow students to enrich their coding skills and algorithmic thinking under a group known as Random Coders, May 2020 August 2020
- Runner-up in the 48-hour international hackathon on frontend web development, HACKATHON 2K21 hosted by E-cell IIIT Pune, June 2021
- Active participant and winner in various competitive programming contests <u>Google Kickstart</u>, <u>Codechef</u>, <u>Codeforces</u>, <u>Hackerrank</u>, and <u>other inter-college contests</u>
- Part of the CSFC Soccer Club and the college soccer team of PSG College of Technology