

# DHIRAJ BAGUL

New Brunswick, NJ

☎ 609-721-8588

✉ [dhiraj.bagul@rutgers.edu](mailto:dhiraj.bagul@rutgers.edu)

🌐 [linkedin.com/in/dhiraj-bagul](https://www.linkedin.com/in/dhiraj-bagul)

🐙 [github.com/dhirajbagul](https://github.com/dhirajbagul)

## Education

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### Rutgers University

*Master of Science in Computer Science*

September 2021 – May 2023

*New Brunswick, NJ*

### Pune University

*Bachelor of Technology in Computer Engineering | GPA:9.17/10.0*

August 2017 – June 2021

*Pune, India*

## Experience

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### MIT Academy of Engineering

May 2020 – July 2020

*NLP research Intern*

*Pune, India*

- **Evaluated** findings and shortcomings of **25+ scholarly research articles**. Read and summarized articles based on the topic of recommender systems and their use case in literature recommendations.
- Proposed a novel literature recommendation approach that **outperformed** standard literature recommendation approach by **30%**.
- Implemented Publication Recommender System in Python based on new approach to recommend top 5 apt publications from 200+ journals and conferences to publish new scholarly articles.
- **Presented and published** the findings in **IEEE conference: ICICT, 2021(2 Citations)**; [Article Link](#).

### USLAB, Inc

April 2019 – June 2019

*Software Developer Intern*

*Pune, India*

- Co-operated to design and develop functional desktop application for attendance management system that made overall process 4x faster compared to traditional approach.
- Prepared the back-end of the system that stored each attendance record obtained from front-end processes on a Blockchain server.

## Projects

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### Gamified Career Test | Godot, Gdscript, Python

September 2020 – May 2021

- **Spearheaded a team of 6** to research on interdisciplinary topic and develop a desktop game application alternative to questionnaire based career test.
- Leveraged Gamification and Artificial Intelligence based techniques to design a game that can identify user's personality traits and predict career interests based on their gameplay.
- Collaborated with teammates to implement 2D storyline game using Godot game engine and Gdscript language (**2500+ Lines of Code**) to implicitly examine user's response to 50 questions from OCEAN model based personality test.
- **Presented** our novel idea at an International conference, ICRITO, 2021. And, this work will be **published** in **Springer** journal: "International Journal of Systems Assurance Engineering and Management (**H-Index = 24**);" [Article Link](#).

### Organized gathering for social distancing | HTML, CSS, JavaScript, Django

May 2020

- Demonstrated use of a web application for maintaining social distancing at commercial places.
- Maintained the real-time status of commercial places and helped customer scheduling their visits through web application.
- Competed in the Fightcovid hackathon, and earned position in the top 10% of 600+ participating teams.

## Technical Skills

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**Languages:** Python, C++, C, HTML/CSS, JavaScript, SQL

**Developer Tools:** Atom, Jupyter Notebook, Godot, VS Code

**Technologies/Frameworks:** Linux, Windows, GitHub

## Leadership / Extracurricular

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### REDx-AI club

January 2020 – May 2021

*President*

*MIT Academy of Engineering*

- Led 25+ student innovators to conceptualize solutions that can aid the grand challenge of women's Maternal Health during Pregnancy.
- Arranged workshops on the REDx SPOT Process for innovation designed by Prof. Ramesh Raskar, MIT Media Lab, MIT, USA.

### Coding Blocks

March 2020 – May 2021

*Campus Ambassador*

*MIT Academy of Engineering*

- Arranged 10+ coding workshops from industry experts and more than 500+ students took advantage of the workshops.
- Played part in organizing and administering national level technical event "Datathon, 21" in which 25+ teams competed to receive exciting prizes that included paid internships at top tech firms.