# NIRANJAN GIRHE

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## EDUCATION

### 4th Year Bachelor of Technology Computer Engineering
**MIT Academy of Engineering, Pune, India**

📅 August 2019 – Ongoing

- CGPA: 9.74 out of 10. (92.53%)
- JEE mains percentile: 94.55%

## RESEARCH INTERNSHIP

### Game research and development in Serious Games
**Ontario Tech University, Canada (Mitacs GRI)**

📅 May 2022 - Aug 2022                          Adv: Jeremy Bradbury

- **Task:** To design and implement serious games. (Threaded Paws and Robo-Bugs)
- **Description:** Developed serious game that can help students grasp many concurrency concepts and pitfalls of concurrency, like deadlocks data-race and many more. This block-based game with simulated outcomes was created using the Unity game engine. With intuitive form-based level designing and truly scalable game support code.

`Unity` `Krita` `C#` `Audacity` `GitHub` `2D Animation`

## INTERNSHIP

### Web-based Elective Allocation System
**MIT Academy of Engineering**

📅 June 2021 - August 2021                      Adv: Mrs. Ranjana Badre

- **Problem Statement:** Migrated inefficient manual elective allocation to an automated system on a web-based platform.
- **Solution:** Centralized automated process set up on a web portal for elective allocation on the basis of match between user preference and respective availability with CGPA-led prioritizing.
- **Application:** This portal is being used by our Institute for Minor subject allocation.

`HTML` `Javscript` `Firebase` `Firestore database` `CSS`

### Game Development
**Salvation Games**

📅 June 2020 - August 2020                      Adv. Mr. Harshit Solanki

- **Task:** To Develop a Hyper casual Android game
- Developed an android game using C# on unity. Designed character movement mechanics and physics. Also including variable speedrunning, variable height jump, jet physic, and in-game shop.

`Unity` `Blender` `Krita` `C#` `Audacity` `Ragdoll`

## PUBLICATIONS

### 👥 Conference Proceedings

- Girhe, Niranjan et al. (2023). "Shetkari Mitra App—An Application to Maximize the Profit of Farmers". In: *Advances in Communication, Devices and Networking.* Ed. by S Dhar et al. Singapore: Springer Nature Singapore, pp. 111–127. ISBN: 978-981-19-2004-2.
https://link.springer.com/chapter/10.1007/978-981-19-2004-2_10

## CERTIFICATIONS

- **AWS Certified Cloud Practitioner**
- **Microsoft Azure AI fundamental (AI 900)**
- **Microsoft Azure fundamental (AZ 900)**

## SKILLS

`Unity` `C++` `C#` `Android Studio` `Java` `Kotlin` `Python` `AIML` `HTML` `Javascript` `Git & GitHub` `Unreal` `MySQL` `MongoDB` `Adobe XD` `Blender` `3D Animation` `NodeJS`

## ACHIEVEMENTS

🏆 **Winner - Smart India Hackathon**
Built labor complaint registration web portal with feature like speech to text, complaint escalation and text summarisation.

`NodeJS` `Django` `Bootstrap` `GitHub` `AWS` `Azure`

🏆 **Winner - UNESCO-India-Africa (UIA) Hackathon 2022**
Built an Android application which generates Soil Health report with just image and GPS location and gives accurate soil nutrients and chemical analysis with other features like multilingual, and forums. This android application solution was appreciated and we received the award from his excellency the **Vice President of India Shri Jagdeep Dhankhar ji and the Education Minister of India Shri Dharmendra Pradhan ji**

🏆 **Secured 1st rank in HakkerRank Python Challenge**
For solving 6 CP questions the fastest

## RESEARCH PROJECTS

### Smart Traffic System to optimize the city traffic
**MIT Academy of engineering**

📅 Jul 2021 – Ongoing                           Adv: Dr. Avinash Bhute

- Devised a mathematical formula to compute Optimal estimation of green light interval based on traffic flow rate obtained via sensors; Simulated in Unity.

`Unity` `C#` `Python` `Git` `Firestore database` `IoT`

### Shetkari Mitra - Mobile app for farmers
**MIT Academy of engineering**

📅 Aug 2020 – Mar 2021                          Adv: Dr. Avinash Bhute

- Built user-friendly platform for connecting farmers and agricultural experts on a forum; Several data-based features to assist farmers
- The research was presented in ICCDN-2021 conference in SMIT, Sikkim. Pulication details mentioned below.

`Android studio` `Firebase` `API` `Git` `JSON Parsing` `Picasso` `Firestore database` `Web view` `JSON`

## PERSONAL PROJECTS

### NGAnime
**Android Application**

📅 June 2021 – August 2021

- Developed an android application which compiles online Anime streaming platforms at one place. Implemented advance features like sharing anime's using deep linking, export and import data like watch later and anime tracking.

`Android studio` `Java` `JSON` `Git` `Google Analytic`

### Killing Tech - Indie Game development and 3D Animation
**Unity and Blender 3D Animation**

📅 August 2020

- Developed 3D FPS multiplayer Game with low poly graphics using unity and blender. Used Photon 2 engine for networking.
- Experienced in Rigid body, fluid, cloth, particle and fire simulations and animation in Blender open source software.

`Unity` `Blender` `Rigid body Sim` `C#` `Audacity`

### Split It - split group expenses
**Web Development**

📅 January 2022

- Developed a web app to split common expenses within friends

`Firebase` `HTML` `CSS` `Javascript`