

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 Blender Krita C# Audacity

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 Javascript 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

RC Aircraft Development

MIT Aero club

 June 2020 – July 2020

Adv. MITAERO club

- **Task:** To Design an RC Plane and Quad-copter
- Worked on RC Plane and Quad-copter design and developed a working RC Plane and Quad-copter in Virtual mode and tested in ANSYS software. And also researched applications of RC aircraft.

Fusion ANSYS Betaflight


CERTIFICATIONS


- Microsoft Azure fundamental (AZ 900)
- Microsoft Azure AI fundamental (AI 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

-  **Secured 1st rank in HackerRank Python Challenge**
For solving 6 CP questions the fastest

-  **Winner - Smart India Hackathon**
Built labor complaint registration web portal with advance feature like speech to text in regional language, easy complaint escalation and text summarisation.

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.
- **Tech stack:** Unity - C#, Python, Firestore Database, IoT.

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. Publication 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

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