

# Mitesh Gulecha

Email: [mgulecha@iu.edu](mailto:mgulecha@iu.edu) | Mobile: +1 812-778-5200  
Github: <https://github.com/mickyG03> | LinkedIn: <https://www.linkedin.com/in/mitesh-gulecha-5178381a9>

---

## Education:

### Indiana University Bloomington

Bloomington, IN

Graduate Degree in Master of Science (M.S.) in Computer Science | CGPA: 3.55/4.00

Aug. 2022 – May 2024

Coursework: Applied Algorithms, Software Engineering, Advance Operating Systems, Computer Networks, Competitive Programming, Computer Vision, Elements of Artificial-Intelligence, Applied Machine Learning, Data Visualization

### Indus Institute of Technology and Engineering

Ahmedabad, India

Bachelor's Degree in Technology (B.Tech.), Information Technology | CGPA: 9.74 / 10.0

Jul. 2018 – May 2022

Coursework: Object Oriented Programming, Database Management System, Data Structure & Algorithms, Core Java Programming, Design & Analysis of Algorithms, Cloud Computing

---

## Skills:

- **Programming Languages:** C, C++, Python, JAVA, C#, PHP, Kotlin, Rust, Shell Script
  - **Web Technologies:** HTML, CSS, Typescript, JavaScript, React JS, Node JS, Nest JS, JQuery, AJAX, ASP.Net, Three JS, Babylon JS
  - **Database Technologies:** MongoDB, PostgreSQL, GraphQL, MySQL
  - **Frameworks & Tools:** Django, .NET, Springboot, CMake, Docker, Flask, ElasticSearch
  - **Cloud Technologies:** Amazon Web Services (AWS), Google Cloud Platform
  - **Development Methodologies & Frameworks:** Agile, Jira, Scrum, CI/CD
- 

## Work Experience:

### Research Assistant , Indiana University Bloomington-US

Feb. 2023 - Present

- Constructed physics-based software framework in Python-Flask, to create environments sustainable for training RL agents in 3D physics simulations with accelerated learning speed by 60%
- Collaborated with Prof. Zoran Tiganj and 2 P.H.D students, to develop web-desktop environment for neural-dynamics behavior
- Achieved 30M daily training steps and 85% precision increase. Stimulated agents to mimic mouse accumulation-tasks
- Research paper accepted by NeurIPS-2023 Workshop: <https://openreview.net/forum?id=5W9so5v0OU>

### Software Engineer Intern, Prepseed, Ahmedabad-India

Jun. 2023 - Jul 2023

- Spearheaded scalable Microservices development using Nest.js, bolstered performance/scaling using MERN and TypeScript skills to design, build, deploy full-stack web apps with custom APIs. Increased fault-isolation and maintenance-ease by 70%
- Orchestrated Monolith-to-Microservices architecture transition with advanced chat services, to gain 30% higher agility
- Integrated TCP sockets, Redis, powered by AWS's S3 Bucket, resulting in a streamlined communication tailored for targeted students and educational organizations

### Software Developer - Web Based, Wolves Business Solutions (Now Visuareal), Ahmedabad-India

Jan. 2022 - May 2022

- Translated client's vision into tangible-outcome by implementing JavaScript, SQL, PHP to enhance an advanced real-time 3D visualization web-application using Three-JS & Babylon-JS, conceptualized for architects, designers, and decor-manufacturers
  - Reduced administrative overhead by 1/4
  - Elevated experience and cultivated a pliable SaaS platform coherent with clients' web architecture, databases, achieved reduction in cycle time and amplification in flexibility by 2x times
  - Project: <https://visuareal.in/home/visualizer/> | <https://www.kajariaeternity.com/tile-visualiser/>
- 

## Open-Source Contributions:

Mozilla | Javascript, Rust, Python, Shell | <https://github.com/mozilla/geckodriver/releases/tag/v0.34.0>

Collaborated with development team to fix bugs within Mozilla-WebDriver's codebase by implementing a comprehensive solution that involved refactoring the module logic and features of accessibility like pages, assets, and migration of file systems

Python: DIPY | Python | [https://workshop.dipy.org/documentation/1.7.0/release\\_notes/release1.7/](https://workshop.dipy.org/documentation/1.7.0/release_notes/release1.7/)

Refined Python's library for diffusion MRI Analysis-DIPY, by enhancing the functionality and appending predefined behavior methods for generating a matrix used for probability mass functions (PMFs), offering an option for backward compatibility

---

## Projects:

WealthPix- Generative AI Financial Advisor Web Chat-Bot | Asp.Net, C#, Bootstrap. Html, CSS, JS, Rest, Google Cloud Platform, Vertex API

Orchestrated the development of an AI-driven Fintech solution that offers personalized financial insights. Merged Dotnet-MVC architecture with GCP, implemented few-shot learning model, to achieve impressive 70% increase in accuracy

Project: <https://github.com/MickyG03/Wealthpix>

Whatsapp-Web Clone | MongoDB, Express, React JS, Node JS, Redis, WebSocket, CSS, HTML, Ajax, JQuery

Engineered WhatsApp-clone web-app through full-stack development, incorporating real-time messaging, video call capabilities, and advanced functionalities. Leveraged MERN stack, Socket IO, WebRTC, and Redux Toolkit to drive 40% reduction in page load time

Frontend: <https://github.com/MickyG03/Whatsapp-Clone-Frontend> Backend: <https://github.com/MickyG03/Whatsapp-Clone-Backend>

Hyper News Portal | Django, Python, SQL, Bootstrap, HTML, CSS, JS, PostgreSQL

Led the development of full-stack News-Portal using Django, employing advanced JSON/PostgreSQL data-storage; leveraged Django's URL routing and HTML-template capabilities. Amplified and intuitively flowed UX with CSS styling for 30% increase in seamless-browsing-traffic

Project: <https://github.com/MickyG03/Hyper-News-Portal>

---