



# Harshit Rakesh Shiroiya

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## EDUCATION

**Masters of Science in Computer Science**, *Indiana University Bloomington* May 2023  
GPA: 3.7/4.0

**Coursework:** Software Engineering, Advance Database, Applied Algorithms, Elements of AI, System Analysis and Design


**Bachelor of Engineering in IT**, *University of Mumbai* Jun 2021  
GPA: 3.8/4.0

**Coursework:** Operating Systems, Software Engineering, Internet Programming, Advanced Data Structure Algorithm.

## WORK EXPERIENCE

**Software Engineer - II**, *Medpace, Inc.*  Jun 2023 – present | Cincinnati, USA

- Developed and maintained 3 clinical software applications using **Angular, C#, .NET Core, Entity Framework, and Microsoft SQL Server** in a **MVC architecture**.
- Reduced API response time by **35%** by implementing **GraphQL, RESTful API** for faster client-server communication.
- Optimized scalability and reduced infrastructure costs by **35%** by migrating applications to **Azure cloud services** and managing deployments via **Github workflows** and **CI/CD**.
- Refactored a monolithic application into a **microservices** and **micro-frontend architecture**, improving scalability by **40%**, deployment speed by **30%**, and enabling parallel feature development.
- Led UI development** initiatives for 3 major products, improving user experience scores by **25%** and ensuring consistency across modules while mentoring 2 junior developers on frontend development.
- Actively participated in **sprint planning**, achieving **99%** alignment with business owners through effective communication and prioritization of deliverables.

**Software Engineer - Research Assistant**, *Indiana University*  Aug 2022 – May 2023 | Bloomington, USA

- Crawled data from 164 Scientist's timeline using **Twitter API, Youtube API, Reddit API** and extract JSON responses.
- Cleaned, parsed, and segmented tweets to analyze word frequency and identify emotion-related hashtags.


**Software Engineer Intern**, *PERQ*  May 2022 – Dec 2022 | Indianapolis, USA

- Ensured **WCAG 2.1 compliance** to improve web accessibility for users with disabilities.
- Built **backend services** with **.NET (C#)** and developed responsive **frontends** using **Angular.js, Vue.js, and HTML**.
- Managed **PostgreSQL** for storage and backups, and used **Memcached** for high-speed caching.
- Utilized **AWS S3** for static content, **RDS** for PostgreSQL hosting, improving scalability by **30%**.
- Automated and streamlined **CI/CD** pipelines with **AWS CodePipeline** and **Codebuild**, reducing release cycles by **25%**.

**Data Analyst Intern**, *V.H Lakhi Group* Dec 2019 – Feb 2020 | Mumbai, India


- Analyzed **2018-19 sales data** using **Python** to identify key trends and patterns for the sales department.
- Implemented **6 machine learning algorithms**, improving insights and helping boost **future sales by 18%**.

## PROJECTS

**FitnessDial**, *Node.js, React, MongoDB, Angular, AWS* 

- Designed a health wellness system to monitor an individual's everyday activity.
- Implemented registration with authentication using **OAuth 2.0**, search, recommendation, video-streaming, chatting, subscription, rating and review functionalities in the system.
- Leveraged react router to prevent full page reloads, reducing loading of application by **27%**

**Course Outcome Attainment System**, *PHP, HTML, CSS, JavaScript, MySQL*

- Developed an **automated system** to analyze course attainment, ensuring compliance with board standards and improving **continuous quality assessment**.
- Processed and utilized data from **1,600+ students and faculty** for performance evaluation and reporting.
- Authored and presented a paper in ICSCSP, 2020 and published it in JETIR  journal.

## SKILLS

**Programming Languages:** — Python, JavaScript, Java, C, TypeScript, C#, **Web Technologies and Frameworks:** — React, Node.js, Angular.js, Express.js, Typescript, Django, .NET, PHP, CSS, Bootstrap, HTML5, Flask, RESTful web services, JSON, AJAX, XML, jQuery, Selenium, **Database and Storage:** — MongoDB, Amazon RDS, PostgreSQL, Amazon S3, DynamoDB, MySQL, **DevOps and Tools:** — CI/CD, Jenkins, Docker, AWS, Redis, JIRA, GIT, Postman, Azure, Crucible, Bitbucket, GitHub