# Ronakkumar Bhagchandani

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## EDUCATION

**Indiana University Bloomington**                                            Aug 2022 - May 2024
*Master of Science in Computer Science* **GPA: 3.84**                              Bloomington, Indiana.

**Gujarat Technological University**                                            Aug 2016 - Apr 2020
*Bachelor of Engineering, Computer Engineering,* **GPA: 3.67**                          Gujarat, India

## WORK EXPERIENCE

**Bloom Insurance**                                                          May 2023 – Present
***Software Developer Intern*** - SQL, Javascript, Jira, Raygun, MSSQL, GitHub, Git, .Net, C#, JQuery

- Re-engineered high-quality software solutions and collaboration with cross-functional teams with maintaining documentation. Optimized the health care website using OOPs principles and data structure in C#, resulting in a 12% increase in performance.
- Utilized Figma for prototypes & web page design, managed Jira tickets, harnessed Raygun for debugging, teamwork in issue resolution and GitHub for version control.
- Collaborated with the Data team to enhance database design and optimize over 50k records using MSSQL.

**Indiana University - Kelley School Of Business**                               Dec 2022 – May 2023
***Research Assistant*** - Python, Jupyter Book, Sphinx, Pandoc, LaTex, Linux

- Built a pre-defined Tufte-LaTeX in Jupyter-Book using Python, resulting in improved project documentation and 25% increase in users satisfaction.

**Freelance**                                                                Mar 2021 – Jun 2022
***Python Developer*** - Python, Django, Flask, NLP, Linux, Machine Learning, Data Analysis, Database, Docker

- Designing and implementing web based applications end-to-end using Python, Django/Flask with integration with MySQL, PostgreSQL, MongoDB Database, and front end stack, achieving 95% client satisfaction.
- Fixing bugs and improving application performance using OOPs principles in python with agile methodologies.
- Developed deep learning, reinforcement learning and machine learning models using PyTorch, Random Forest, Adaboost, TensorFlow and CNN, DNN architectures, achieving state-of-art accuracy & performance on computer vision, object detection, predictive modeling, forecasting and NLP tasks with PCA, LDA feature selection techniques.
- Machine learning models were used for log aggregation, monitoring, prediction, forecasting, and analytics for 10+ projects with state-of-art accuracy.

## PROJECTS

**TourMate** – Python, Django, BootStrap, Jenkins, Web Development, SQLite, Render, REST API

- Created a Tour Management System website using Python and Django with SQLite Database and API integrations, enabling users to search for travel destinations, plan itineraries, and make bookings.
- The API integrated are: Amadeus(Hotel Booking), Sandbox(Paypal Payment Gateway), Google API (Google Login), OpenAI API, Bit.io API (Online Database), Render (Deployment)

**Sentiment Analysis for IMDB Movie Reviews** - NLP, TF-IDF, BERT, SVM, Monitoring Pipeline, API, Django

- Preprocess movie review text data and vectorize using TF-IDF to generate feature vectors.
- Train baseline models SVM model and fine-tune BERT to classify sentiment, optimizing for 85% validation accuracy.
- Integrate via APIs into production with Django. Set up monitoring, and retraining pipelines as new reviews are added.

**Contextly** - LaTex, Python, Django, PostgreSQL

- Architected and built a SaaS web application aimed at simplifying the creation and editing of professional-quality documents without requiring knowledge of LaTeX from ideation to launch in 5 months using agile methodology.
- Utilized by 700+ Computer Engineer student and 10+ professors at GTU to write LaTex document.

## PUBLICATIONS & ARTICLES

- Bhagchandani, R. (2023). **Reducing Bias in Machine Learning Models with MinDiff Model. Medium.**
- Bhagchandani, R., Panchal, J. & Shah, R. (2021). **Smart Watch Ensuring Safety & Security.** IRJET - YOLO.

## PROGRAMMING SKILLS

**Programming/Query Languages:** Python, C, C++, SQL, Java, Objective-C, JavaScript
**Web Technologies:** Django, Flask, Spring-Boot, .Net, Node.Js, REST, TypeScript
**Dev Tools and Databases:** Docker, Tableau, MySQL, PostgreSQL, Distributed Systems, MongoDB, Oracle.
**Other:** API, AWS, Cloud Computing, Unix, Machine Learning, Deep Learning, OS, TCP/IP, Object-Oriented Design

## LEADERSHIP - EXTRA CURRICULAR - ACHIEVEMENT

- Rank in top 27% LeetCoder all over the globe.
- Finalist in Cheng Wu Innovation Challenge, showcasing AI research work to industry leaders