# Rishabh Bassi

Software Engineer with 4 years of Experience 🌐 California, USA - 94536

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## Education

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| **Texas A&M University** | **Aug 2022 - May 2024** |
| *Master of Science in Computer Science, Specialization in Machine Learning CGPA 4.0* | *College Station, Texas* |
| **Thapar University** | **Aug 2015 - Jun 2019** |
| *Bachelor of Engineering - Computer Science, Specialization in Machine Learning CGPA 9.62* | *Patiala, Punjab* |

## Experience

**LinkedIN**      **May 2023 – Aug 2023**
*Summer Software Intern | **Automation, ML, Python, System Design, Full-Stack, SQL***      *Mountain View, California*
- Designing and implementing a Real-Time Automation framework in MYSQL to detect and report data discrepancies in COLOS, improving data integrity and system reliability saving upto 70% of engineers effort and time.

**Texas A&M University**      **Aug 2022 – May 2023**
*Graduate Research Assistant | **NLP, MPI, PyTorch, GPU/HPRC, C++***      *College Station, Texas*
- Researched bottlenecks in Synthetic Aperture Radar data processing for Satellites and Optimized code for increasing performance by 90% over enormous matrix computations using efficient algorithms, GPU & parallel computing.

**Western Digital**      **Jul 2019 – Jul 2022**
*Senior Engineer | **Firmware, System Design, C++, Backend Development***      *Bangalore, Karnataka*
- Designed Robust Firmware for Error Handling of XOR used in launching products worth USD 1-2B revenue.
- Planned Remodelling of HW Registers Verification in Firmware itself to avoid redundancies in Validation cycles.
- Revised Performance Gaps in Existing SSD FW to meet Blue Category Performance Numbers. Deployed Code with 25% increase in Write-Read CDM Benchmark.

*Six Months and Summer Internship*      **Jun 2018 - Jun 2019**
- Diagnostic Framework and Performance Profiling and Optimization: Enhanced Capability of Framework by adding new diagnostic Paths for SSD Firmware and developing a Performance Counter Framework which helped in debugging 90% of issues in crucial stages of Product Development.

## Technical Skills

**Languages**: Python, Java, C, C++, R, Ruby, Rails, MySQL, HTML, CSS, JS, React, NodeJS, REST
**Technologies/Skills:** BERT, GIT, TensorFlow, GPT3, Django, Jupyter, GitHub, Bootstrap3, Linux, OpenMP, MPI, Eigen, Pytorch, Flask, AWS, ML, Docker, OpenCV, Keras, LLM, Azure, SSMS, Kafka, Espresso, HDFS, GPU, A/B Test, Kubernetes
**Relevant Coursework**: Algorithms, ML, DS, Natural Language Processing, Software Engineering, Operating Systems, Deep Learning, Data Analytics, Networking, Computer Architecture, Information Retrieval, Cloud/Distributed Systems
**Developer Tools**: VSCode, GCP, Source Insight, Android Studio, RStuido, PyCharm, RubyMine, Bitbucket, Sequel ACE

## Projects

**Travelix** | *React, Python, AutoRec, ML:* Website      **May 2023**
- A Personalized travel recommendation system for users based on their preferences and travel history.

**TA Management Portal** | *Ruby, Rails, FrontEnd:* Website      **Aug 2022**
- Provides a portal for student applications for TA positions in the computer science department.

**Political Propaganda Influence using Twitter Sentiment Analysis** | *Python, NLP, ML:* Project Code      **Apr 2021**
- Predict the influence of celebrities during elections leveraging sentiment analysis on Retweets of followers.

**Humanoid** | *Python, Natural Language Processing, Image Processing, Raspberry Pi:* Project Report      **Oct 2018**
- Build a Humanoid to function as a ChatBot deploying TensorFlow; Identify objects using OCR, perform functions such as Personalized AI and help in interview preparation.

**Automatic Text Summarization** | *Django, Python, Front End, Javascript NLP:* Project Code      **Apr 2018**
- Created a website to Utilize Natural Language Processing to summarize webpages or PDFs to a specified word limit.

## Achievements

🏆 Gold Medalist Thapar University - 2018
🏆 Merit Scholarship for Exemplary Academic Performance and National Scholarship Holder Thapar University - 2017-2018
🏆 Work Level Recognition Awarded for Making it Happen and Doing it Together

## Research / Leadership / Extracurricular

- Publication on Autonomous Tagging of StackOverflow Questions using Statistical Methods, Link - ICCSIE 2018.
- Publication on Spirochaeta Bacteria Detection Using an Efficient Deep Learning Approach, Link - ICCVBIC 2021.
- Research on Applications of NLP to give human-like understanding to Networks under UIUC Professor Matthew, Fall 2021.
- Managed family business Pushap Industries by directing the manufacturing workforce along with coordinating supply chain.
- Executive Member of Pratigya Society to teach underprivileged children, Toastmasters Club at Western Digital.
- Participation in Hackathons and Innovation Bazaar organized at Western Digital, Volunteering in NGOs.