# RISHABH BASSI

Results-driven Machine Learning/Software Engineer with 4 years of industry experience. 🌐 California, USA

📞 +1 (341) 345-7799  ✉️ [rbassi@tamu.edu](mailto:rbassi@tamu.edu)  in [https://linkedin.com/in/rishabh-bassi](https://linkedin.com/in/rishabh-bassi)  🌐 [https://bassirishabh.github.io/](https://bassirishabh.github.io/)

## Interests

- A results-driven Computer Science Engineer with a proven track record in the software industry, combining technical expertise with a strong drive to bridge the gap between cutting-edge research and practical implementation. Passionate about developing innovative software and machine learning solutions to tackle complex problems.

## Education

**Texas A&M University**                                          **Aug 2022 - May 2024**
*Master of Science in Computer Science 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*
Department Rank 9 among 450 students

## Experience

**LinkedIN**                                                 **May 2023 – Aug 2023**
*Summer Software Intern | **Automation, ML, Python, System Design, Full-Stack, SQL***     *Mountain View, California*

- Designed and Implemented a Real-Time Automation framework in MYSQL to detect and report data discrepancies in COLOS, improving data integrity and system reliability significantly reducing engineers' effort and time by up to 70%.

**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*

- Engineered robust Firmware for XOR Error Handling, enabling the successful launch of high-value products generating USD 1-2B in revenue.
- Orchestrated the remodeling of HW Registers Verification in the FW, eliminating 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 Internship*                                           *Jan 2019 - Jun 2019*

- Diagnostic Framework : Enhanced Capability of Framework by adding new diagnostic Paths for SSD Firmware which helped in debugging 90% of issues in crucial stages of Product Development.

*Summer Internship*                                             *Jun 2018 - Aug 2018*

- Performance Profiling and Optimization: Developed a Performance Counter Framework to help developer analyze defects in coding schemes, hence optimizing bottleneck in SSD Firmware.

## Technical Skills

**Languages**: Python, Java, C, C++, R, Ruby, Rails
**Web/Database**: HTML,CSS, Javascript, SQL, React, NodeJS, Rest
**Skills**: Git, BERT, Machine Learning, Natural Language Processing, Data Analytics, Keras, LLM, Azure, SSMS, Kafka, Espresso, HDFS, GPU, A/B Test, Kubernetes
**Developer Tools**: VS Code, GCP, Source Insight, Android Studio, RStudio, PyCharm, RubyMine, MSOffice, Bitbucket, Sequel ACE, HPRC
**Technologies/Frameworks**: OpenMP, TensorFlow, GPT3, Django, Jupyter, GitHub, Bootstrap3, Linux, WordPress, MPI, Pytorch, Eigen, Flask, AWS, ML, Docker, OpenCV, Multiprocessing

## Research Experience

- Publication on Autonomous Tagging of Stack Overflow Questions using Statistical Methods, International Conference on Computer Science,Industrial Electronics, Link - ICCSIE Bengaluru 2018.

- Publication on Spirochaeta Bacteria Detection Using an Efficient Deep Learning Approach, International Conference on Computational Vision and Bio Inspired Computing, Link - ICCVBIC 2021.

- Research on Applications of NLP to give human-like understanding to Networks - Remote Research under UIUC Professor Matthew Caesar, Fall 2021.

## Projects

**TA Management Portal** | *Ruby, Rails, FrontEnd* : Project Code **August 2022**
- Created a dynamic website streamlining the application process for students applying for Teaching Assistant positions improving efficiency and facilitating better communication between applicants and administrators.

**Humanoid** | *Python, Natural Language Processing, Image Processing, Raspberry Pi* : Project Report **Dec 2018**
- Engineered a ChatBot powered by TensorFlow to enable functionalities such as OCR, personalized AI interactions, assistance in interview preparation, showcasing the potential of advanced technologies in creating intelligent systems.

**Travelix** | *React, Python, AutoRec, ML* : Website **May 2023**
- Developed Travelix, a cutting-edge personalized travel recommendation system enabling users to receive tailored travel suggestions based on their preferences and travel history, enhancing their overall travel experiences.

**Automatic Text Summarization** | *Django, Python, Front End, Javascript NLP*: Project Code **Nov 2018**
- Developed an Automatic Text Summarization website enabling users to summarize webpages or PDFs to a specified word limit, improving efficiency in information consumption and enhancing productivity in reading and research tasks.

**Data Mining and Analysis Project** | *R, Data Analytics, ML* : Project Code **Apr 2023**
- Implemented various ML models and Feature selection techniques to do supervised and unsupervised learning task on huge dataset.

**Political Propoganda Influence using Twitter Sentiment Analysis** | *Python, NLP, ML* : Project Code **Apr 2021**
- Implemented a research project utilizing SA on Retweets of followers to predict the influence of celebrities during elections, providing valuable insights into the impact of social media on public opinion.

**Tourism Portal** | *HTML, CSS, Javascript* : Project Code **Aug 2018**
- Build a Front End Website portal for tourism highlighting various landmarks, attraction spots, packages and various other items.

**Combo Offers Portal** | *Python, Django, Machine Learning* : Project Code **Oct 2017**
- Established Web App Management portal for e-commerce websites to display inventory within specified budget.

**Employee Management System** | *Java, Servlets, JSP, DBMS, PL/SQL* **Sep 2016**
- Allows admins to mutate and manage employee details; Allows portal access and management to employees.

## Achievements

- 🏆 Gold Medalist Thapar University - 2018
- 🏆 Merit Scholarship for Exemplary Academic Performance Thapar University - 2017-2018
- 🏆 National Scholarship Holder Senior Secondary - 2015
- 🏆 Work Level Recognition Awarded for Making it Happen and Doing it Together

## Certifications

**Summer Industrial Training 2016**: Advanced Java Training
**Summer Internship 2017**: Android App Development
**Workplace Training 2020**: Python for Scripting, Assertive Communication
**MOOC's**: Machine Learning A-Z HandsOn, PHP Development, Coursera IOT Course, NLP with Classification and Vector Spaces, Neural Networks and Deep Learning, NLP Essential Training and Advanced NLP, Excel Essential and Advanced Training, Udemy Mastering Data Structures and Algo Course

## Relevant Coursework

- Data Structures
- Software Engineering
- Algorithms Analysis
- Database Management
- Artificial Intelligence
- Internet Technology
- Systems Programming
- Computer Architecture
- Operating Systems
- Machine Learning
- Natural Language Processing
- Information Storage and Retrieval
- Data Mining and Analysis
- Distributed Systems and Cloud Computing

## Leadership / Extracurricular

- Managed family business Pushap Industries by directing manfacturing workforce along with coordinating supply chain.
- Executive Member of Pratigya Society to teach underprivileged children.
- Participation in Hackathon organized at Western Digital and Innovation Bazaar.
- Volunteering in NGOs such as Akshya Patra, JAZZ HANDS and other individual volunteering activities.
- Member of Hospitality Team to organize Saturnalia Fest 2016.
- Member of Toastmasters Club at Western Digital Model and Model United Nations Participation 2016.
- Hobbies : Travel, Investment, Reading Books, Cooking, Writing Journal, Cinephile, Learning New Language, Badminton, Sports.