

RISHABH BASSI

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

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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

Master of Science in Computer Science CGPA 4.0

Aug 2022 - May 2024

College Station, Texas

Thapar University

Bachelor of Engineering - Computer Science, Specialization in Machine Learning CGPA 9.62

Aug 2015 - Jun 2019

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

- 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 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**
- The app handles the student applications for TA positions in the computer science department with various functionalities of the hiring manager, professor, and student.
- Humanoid** | *Python, Natural Language Processing, Image Processing, Raspberry Pi* : [Project Report](#) **Dec 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.
- Travelix** | *React, Python, AutoRec, ML* : [Website](#) **May 2023**
- TRAVELIX is a personalized travel recommendation system that provides recommendations to users based on their preferences and travel history.
- Automatic Text Summarization** | *Django, Python, Front End, Javascript NLP*: [Project Code](#) **Nov 2018**
- Designed website to Utilize Natural Language Processing to summarize webpages or PDF to specified word limit.
- 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**
- Predict influence of celebrities during elections leveraging sentiment analysis on Retweets of followers.
- 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

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

Leadership / Extracurricular

- Managed family business Pushap Industries by directing manufacturing 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.