

# RISHABH BASSI

Software Engineer with 3 years of Experience 🌐 Bryan, TX, USA - 77801

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## Education

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### Texas A&M University

*Master of Science in Computer Science*

**August 2022 - Present**

*College Station, Texas*

### Thapar University

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

**August 2015 - June 2019**

*Patiala, Punjab*

Department Rank 9 among 450 students

### D.A.V. Senior Secondary School

*Senior Secondary School 93%*

**April 2013 - March 2015**

*Hoshiarpur*

Rank 1 in School

### St. Joseph's Convent School

*Secondary School 94.6%*

**Till 2013**

*Hoshiarpur*

Rank 4 in District Level

## Interests

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- My broad area of interest lies in the fields of Machine Learning, Deep Learning, Natural Language Processing and their far reaching applications in Healthcare, Computer Vision, Reinforcement Learning and their intersections

## Experience

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### Western Digital

*Senior Engineer*

**July 2019 – Present**

*Bangalore, Karnataka*

- Designed Robust Firmware for Error Handling of XOR to better handle defective NAND Memories.
- 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.
- Stabilization of Product during Feature Complete and RC solving Issues spanning through Modules such as E2E, PF.

*Six Months Internship*

*Jan 2019 - June 2019*

- Diagnostic Framework : Enhanced Capability of Framework by adding new diagnostic Paths for SSD Firmware as it gives bypass to actual Firmware and helps in crucial stages of Product Development.

*Summer Internship*

*Jun 2018 - Aug 2018*

- PERFORMANCE PROFILING AND OPTIMIZATION : Designed a Performance Counter Framework to help developer analyze defects in coding schemes, hence optimizing the bottleneck in SSD Firmware.

## Technical Skills

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**Languages:** Python, Java, C, C++, R

**Web/Database:** HTML, CSS, Javascript, SQL

**Skills:** Machine Learning, Natural Language Processing, Data Analytics

**Developer Tools:** VS Code, Source Insight, Android Studio, RStudio, PyCharm, MSOffice, Bitbucket

**Technologies/Frameworks:** Django, Jupyter, GitHub, Bootstrap3, WordPress

## Research Experience

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- 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](#)
- Applications of NLP to give human-like understanding to Networks - Remote Research under UIUC Professor Matthew Caesar, Fall 2021

## Projects

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- Political Propaganda Influence using Twitter Sentiment Analysis** | *Python, NLP, ML* : [Project Code](#) **April 2021**
- Predict influence of celebrities during elections using sentiment analysis on Retweets of their followers.
- Humanoid** | *Python, Natural Language Processing, Image Processing, Raspberry Pi* : [Project Report](#) **Dec 2018**
- Build a Humanoid to function as a ChatBot using 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](#) **Nov 2018**
- Designed website to Utilize Natural Language Processing to summarize webpages or PDF to specified word limit
- Speak Translator** | *Java, Android, OCR* **Nov 2018**
- Application to translate image text to user specified language using OCR and TTS
- 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](#) **October 2017**
- Web App Management portal for e-commerce websites for displaying inventory within specified budget
- Employee Management System** | *Java, Servlets, JSP, DBMS, PL/SQL* **September 2016**
- Allows admins to mutate and manage employee details; Allows portal access and management to employees.

## Achievements

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- 🏆 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

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**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

## Relevant Coursework

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|------------------------|---------------------------|-------------------------|-------------------------------|
| • Data Structures      | • Database Management     | • Systems Programming   | • Machine Learning            |
| • Software Engineering | • Artificial Intelligence | • Computer Architecture | • Natural Language Processing |
| • Algorithms Analysis  | • Internet Technology     | • Operating Systems     |                               |

## Leadership / Extracurricular

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- 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.