M S Pawan Ranjith

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EDUCATION

- **University of Colorado, Boulder** — Colorado, USA
  Master of Computer Science (MSCS) — *Aug 2022 - May 2024*

- **M S Ramaiah Institute of Technology, Bengaluru** — Karnataka, India
  Bachelor of Engineering (B.E.) - Information Science and Engineering; GPA: 9.38/10 — *July 2015 - July 2019*

SKILLS SUMMARY

- **Languages** — Java, Python, Scala, JavaScript, JuliaLang, C/C++, Shell, SQL
- **Frameworks** — SpringBoot, Spark, ReactJS, Node.js, Django, Flask, TensorFlow
- **Cloud Tech & Tools** — Pivotal Cloud Services, AWS, Elastic Search, Apache Geode Cache, Kafka, Git, Jira
- **Database Management** — Oracle ExaData, MySQL/MariaDB, MongoDB, Redis

WORK EXPERIENCE

- **JP Morgan Chase & Co.** — Bengaluru
  Associate Software Engineer (Liquidity and Finance Reporting Team) — *July 2019 - July 2022*
  - **Reduced** business calculation time by **40%** through implementing efficient Spark jobs for bank liquidity reporting.
  - **Decreased** application's **infrastructure cost** by modernizing user-facing monolith applications to **Microservices** based apps hosted in the internal cloud.
  - **Enhanced security** by adopting **ADFS and Kerberos** authentication.
  - Worked on **PoC of DNN** that can predict the reason for the data anomaly found and worked on model explainability.

  Intern (Fund Services Team) — *Jan 2019 - July 2019*
  - Selected as part of **Code For Good program 2018**. Built **automation tool** to set up **sandbox** based on user experiment configuration, **Saving** upto **2 person-hour per request**.

- **Indian Institute of Science** — Bengaluru
  Research Intern — *June 2018 - August 2018*
  - Selected as part **Narendra Summer Internship**, in Database System Lab, CSA department. Applied Deep Learning techniques in predicting cost metrics of a query to aid the query optimizer to pick the **most optimal execution path**.

- **ITC Infotech** — Bengaluru
  Developer Intern — *July 2017 - August 2017*
  - Built **Android app** for promoting small self-help groups in rural India. Worked on Azure Native App Integration and Aadhaar biometric authentication.

- **Student Microsoft Developer Program** — Bengaluru
  Developer Intern — *June 2017 - July 2017*
  - University collaborated program in **Microsoft Mobile Innovation Research Lab(MSRIT)**. Developed an interface for the **cross-platform** mobile applications to read various underlying sensors, i.e., GPS, Fingerprint, etc.

PROJECTS

- **Graphic Based Verbal Reasoning — Computer Vision & NLP**
  It's a tool capable of answering natural-language questions asked on images. The question queried can be free form and open-ended, and the tool returns a natural language answer with confidence for each answer. It does reasoning than recognition on image, hence it leverages Computer Vision and NLP techniques to achieve.

- **ICPAPP — GPS and FingerPrint Auth**
  Presented an innovative solution of collecting data necessary for calculating GDP in a non-repudiated methodology and eliminating proxy reporting by authenticating based on fingerprint and authorizing based on geo-position. This project was extension to my work done as part of Microsoft Student Developer Internship.

- **Information Integrated Farming — Decision Support System**
  Designed and developed a Decision Support System for different agricultural industry stakeholders by augmenting various statistical data over an interactive map with geographical information. PoC as part of Smart Village initiative by State Govt.

- **Blood Glucose Monitoring — Time Series Analysis**
  It's a non-invasive continuous blood glucose monitoring system. Performed time series analysis of rising and falling sugar levels to predict the insulin dosage.

CERTIFICATIONS

- **MTA - Cloud Fundamentals**
  Microsoft Technology Associate in Cloud Fundamentals.

- **Google Applied CS With Android**
  Certificate for successfully completing the Google Applied CS with Android Course.

Positions Held

- **Board of Studies - Information Science & Engineering Dept. (MSRIT)** — Bengaluru
  Alumni Member — *March 2021 - March 2022*
  - I helped the department adopt the latest tech industry trends into the curriculum and amend the curriculum to adhere to the New Education Policy by Govt. of India.
- **Google Developer Student Club (MSRIT)** — Bengaluru
  Lead of the Club — *June 2018 - June 2019*
  - I conducted various hands-on sessions on various topics like Web & Mobile technologies, Microservice Architecture.. for 500+ students. I also mentored my juniors with their projects out of sheer passion.
  - I have organized and managed numerous events like MLH Hackathon.. having 200+ participants. I have also been invited as Internal Judge to select teams for representing the college in Smart India Hackathon.
- **Women In Engineering — IEEE Chapter (MSRIT)** — Bengaluru
  Executive Member — *June 2017 - June 2019*
  - As part of the technical team of WiE College chapter, I have built and maintained a web application that assisted in easier event management like automating registering process, and generation of e-Certificates for various events usually held under WiE symposium

Publications

- **Augmentation on Satellite Imagery with Information Integrated Farming**
  Published peer-reviewed paper at IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT 2019)

Honors and Awards

- **Best Outgoing Student 2019**
  Awarded with title from my Dept. for my overall performance in academic and extra-curricular activities
- **Best Senior Project**
  Recognised by my Dept. and Alumni Association of the college for my work in Graphic Based Verbal Reasoning project
- **Smart India Hack 2018**
  Won the Innovation award for developing an app for ICPAPP, for Dept. Statistics and Planning (Govt.India)
- **iTech2017 Codeathon**
  Winner-Special Jury award for developing in-app comprehensive feedback system as part of hackathon conducted by ITC Infotech India Ltd.

Research Interests

Deep Learning, Computer Vision, NLP, Explainable AI, Distributed Systems