Raghuvir Singh

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EDUCATION

Birla Institute of Technology & Science, Pilani   Hyderabad, India
B.E. in Computer Science and Engineering; CGPA: 8.60/10.00   *Nov 2020 – July 2024*

SKILLS

Tags: C, C++, Python, Java (basic), Javascript, Linux, Git, Docker, IPC, Databases, Agents, CI/CD, FastAPI, Tmux xD

WORK EXPERIENCE

Cisco | *Software Engineer 1*   Bangalore, India
Software Engineer 1   *Jan 2024 –*
- Developed **CodeWatch** - an agentic solution that batch fixed **100k+** static defects in the code autonomously, while also validating them. Horizontally scalable and stateless - introduced a multi-agent async architecture.
- Showcased on **OpenAI's** website and selected in the **Top 3** among **400+** Teams worldwide during an MCP hackathon organised by **Anthropic**. [*[Link]*]
- Created a **Clang/LLVM AST/LibTooling tracer**, that reduced code walkthrough time by **95%** while tagging sensitive database objects. Built a CI/CD pipeline for deploying sanity, ensuring software quality assurance release to release.
- Added a security layer over **IPC** using **eBPF**, while maintaining similar p99 latency.
- Implemented Hardware Assisted IP directed broadcast, which led to **$M** deals with large vendors.
- Developed a tool to collect **IPC telemetry data**, used the Elastic Stack for monitoring, logging, and event detection
- Introduced system **observability** by creating dashboards including features like real-time latency analysis using customized Kibana dashboards to identify performance bottlenecks in real-time.
- Worked on an automated PR-review agent, **DeepSight** integrated into the official CI/CD pipeline.

Riple.org   Remote
Full-Stack Development Intern   *May 2023 – Jul 2023*
- Led the design and development of a full-stack web application from concept to deployment, creating a **server-side rendered** (SSR) platform with progressive web app (PWA) support, reducing page load times by **30%+**.
- Designed a cutting-edge Dynamic News Aggregation system for real-time data ingestion, processing over 10,000+ news articles per day. Ensured seamless **horizontal scalability** and automated pipelines via GitLab CI/CD.
- Automated the entire pipeline for fetching, filtering, and publishing using **AWS Step Functions, Lambda, and DynamoDB**, eliminating manual intervention and reducing cloud costs heavily through serverless architecture.

Reliance Jio   Mumbai, India
Software Engineering Intern   *May 2022 – Jul 2022*
- Developed an advanced **NLP**-based meeting summarizer using **Transformer models** and SpaCy, implementing extractive and abstractive techniques to reduce meeting consumption time by 35%
- Integrated with communication platforms via REST APIs, deployed using containerization for scalability, and automated updates through CI/CD pipelines with GitLab CI cutting development life cycles by **30%**.

PROJECTS

Institutional Grammar for Indian Law | *Research Project (Prof. Prajna Upadhyay)*   Jun 2023
- Led the development of a generative Law statement categorization system for Indian Law using NLP and IG rules.
- Employed SpaCy for part-of-speech tagging and dependency graphs to identify Attributes, Aims, Contexts, and Deontics achieving **over 95% precision**.
- **Presented** at 31st International Conference on Computational Linguistics (COLING) 2025, Abu Dhabi.

ACHIEVEMENTS & PORS

- Awarded Silver Medal at Canadian Senior Mathematics Contest organised by the University of Waterloo for ranking among top 5 students out of 13000+ participants.
- Worked as the Pitching coordinator for BITS' Placement Unit. Liaison between college students and 100s of companies in the corporate world.
- Collaborated with the Hyderabad Police Dept. for their NLP initiative. Provided the Police Dept. with data insights into their social media handles such as topic modelling, sentiment analysis, etc. using 250k+ data points.
- Won Intern Spotlight as a Cisco intern in India.
- **Pupil** Codeforces.