Pradhyuman Yadav

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Summary - Experienced software engineer with expertise in Python, Java and microservices architecture, adept at delivering scalable solutions that enhance system performance. Actively seeking opportunities to leverage advanced AI and cloud technologies in innovative and impactful projects.

Experience

Optum **Jul 2022 – Aug 2023**
Software Engineer *India*

- Spearheaded the design and development of a **microservices** architecture for a **high-performance** streaming data application, increasing data throughput by 35% and **reliability** by 25%.
- Collaborated with cross-functional teams to implement scalable **APIs** using **Spring Boot and Quarkus** frameworks, enhancing the system's ability to handle 50% more concurrent users and reducing server response times by 20%.
- Delivered a high-availability solution for data visualization using **Flask, React, PostgreSQL, and Docker,** reducing analysis time by 50% for over 100,000 users.
- Engaged with stakeholders to optimize database performance and improve **data pipeline** reliability, cutting operational delays by 40%.

Internship

Research Center Imarat **Jan 2022 – May 2022**
Software Engineer Intern *India*

- Initiated development of a **Windows Server** and Client application leveraging **Python** and **Socket Programming**, increasing data processing efficiency by 25% and decreasing processing time from 4 to 3 hours, boosting system uptime by 15%.
- Functioned in a team of interns and improved system response time from 10 to 2 seconds and user satisfaction by 30% by enhancing data visualization with Plotly, leading to a 20% improvement in data interpretation accuracy.

Projects

JobMatch Automator | *Python, Selenium, Google Cloud Console* **May 2024 – Jun 2024**

- Designed and deployed a microservices-based system to collect job data from 5+ major job boards, automating the process with cron jobs and SQLite for efficiency.
- Achieved 85% job matching accuracy by leveraging feature engineering and integrating data pipelines into Llama3 and a local GPT model, reducing operational costs by 20%.
- Automated job postings to Discord via webhooks, accelerating the job application process by 80% and enhancing scalability.

Trading with ML | *Python, Backtrader, Yahoo and Binance API* **Jun 2024 – Ongoing**

- Built a Python-based trading platform that executed 150 trades, achieving 20% portfolio growth by leveraging machine learning for 85% market trend forecasting accuracy.
- Reduced response times to market changes by 30% using real-time financial API integration and optimized model pipelines for high availability.
- Applied advanced data preprocessing techniques to improve model reliability and performance in volatile market conditions.

Technical Skills

Python, Java, Core Java, C, C++, back-end, data structures, end-to-end, HTML/CSS, JavaScript, SQL, GraphQL, Go (Golang), Node.js, MongoDB, Redis, **REST APIs**, Google Cloud Platform, GitHub, **Linux, Quarkus, Spring Boot, JUnit**, Caching strategies, Message Queues (Kafka, RabbitMQ), Load Balancing, AWS (Lambda, EC2, S3), Azure, **Google Cloud (BigQuery, Cloud Functions)**, TensorFlow, PyTorch, Scikit-learn, OpenCV, AutoML tools, Natural Language Processing (NLP), Computer Vision, Reinforcement Learning, Docker, Containerization, Kubernetes, Jenkins, Terraform, Dockerized ML models, **Redux, NoSQL, Webpack**, and CI/CD pipelines. **Angular, Agile, cloud technologies, NoSQL, Radius, software development life cycle**

Research

Conducted glaucoma detection research using image processing on over 200 medical images, implementing GVF and GGVF algorithms in Java and MATLAB, achieving 85% segmentation accuracy across 3 datasets using 5 distinct metrics to evaluate results.

Education

George Washington University **Aug 2023 - May 2025**
Master of Science in Computer Science; GPA: 3.80 *Washington, DC*

Manipal Institute of Technology **Aug 2018 - May 2022**
Bachelor of Engineering; GPA: 3.60 *India*