SAURAV SAKAR

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SUMMARY

A versatile Senior Software Developer with a proven track record in research analysis, machine learning engineering, and full-stack development. Passionate about exploring the capabilities of Generative AI and Large Language Models (LLMs). Recognized for a strong inclination towards continuous learning, agile development, and deploying scalable solutions in fast-paced environments. Successfully contributed to diverse projects, showcasing adaptability and expertise in aligning technical solutions with business needs.

WORK EXPERIENCE - SOFTWARE DEVELOPMENT ROLES

Hardpoint Consulting; Michigan (Remote)   **Sep 2023 - Present**
AI Intern

- Leading the foundational development of Large Language Models (LLMs) tailored for enhancing operational efficiency in the business sector, especially for small and medium enterprises.
- Collaborating within a startup environment to conceptualize AI frameworks, setting the stage to potentially improve operational efficiencies by up to 35% in targeted business segments.
- Spearheading the integration of open-source models using the Hugging Face library, ensuring a scalable and adaptable foundation for diverse business needs.
- Laying the groundwork for future AI deployments to the cloud, targeting a system capable of accommodating a 300% user growth in the first year of client acquisition.
- Actively engaging in knowledge exchange and strategy sessions to understand potential client pain points and tailor solutions accordingly.
- Establishing preliminary KPIs to measure the projected impact of LLMs, positioning Hardpoint Consulting for a data-driven approach as the company progresses.

Zeta; Bangalore, India   **Oct 2021 - Aug 2022**
Software Developer II

- Customized Apache OpenWhisk's source code to meet unique business demands, enabling support for 1,000+ parallel requests from diverse microservices.
- Introduced and integrated a proprietary Golang service, substantially boosting the tracking and reliability of serverless functions run on OpenWhisk. This innovation led to more predictable and stable deployments.
- Strategically utilized Kafka for rate limiting, resulting in a dramatic 70% reduction in production issues, ensuring smooth and efficient system operations.
- Achieved an exceptional 99.99% uptime for the newly introduced Golang service, utilizing Grafana and Prometheus for comprehensive monitoring. Integrated real-time downtime alerting through Slack, guaranteeing immediate response to potential system threats.
- Employed cutting-edge technologies including Golang, Lambda functions, serverless architecture, and PostgreSQL to realize advanced solutions and drive project advancements.

KredX; Bangalore, India   **July 2020 - Oct 2021**
Software Engineer

- Introduced and designed a unified communication platform for the financial sector, substantially enhancing SMS/app notifications.
- Secured a remarkable 100% service reliability for this platform by diligently enforcing template structure adherence and instituting rate limiting with third-party integrations.

- Deployed strategic elastic scaling measures, slashing communication delays by a significant 99%, ensuring operational cost-efficiency during quieter periods.
- Boosted system reliability and diagnostics by refining logging mechanisms, effectively reducing SLA breaches and potential system threats.

Atlan; Delhi, India   **Dec 2018 - Jan 2020**
Software Engineer
- Troubleshot and improved performance issues, resulting in a 40% boost in API load times for certain users via strategic tracing, debugging, and optimization methods.
- Innovatively developed a Golang-based data streaming platform using microservice architecture on a GCP-AWS stack, resulting in a 98% stability improvement.
- Engineered a scalable Data Collection Platform for Nutrition and Social Parameters, gathering millions of data points from undernourished families in collaboration with Azim Premji Foundation.
- Spearheaded the creation of custom ETL pipelines, offering efficient data processing solutions based on client needs, improving data processing abilities and simplifying operations.

EARLY CAREER POSITIONS & INTERNSHIPS

Arizona State University; Tempe, AZ
Research Assistant: **May 2023 – Sep 2023**
- Engaged in an in-depth collaboration, focusing on the intricate dynamics between streamers and viewers on platforms like Twitch, providing valuable insights for future research.
- Pioneered the design and development of an advanced web scraper utilizing Playwright, and seamlessly integrated it with AWS. This robust solution consistently maintained a remarkable 95% uptime over a span of 3 months.
- Successfully rolled out several system enhancements, which culminated in an impressive 80% reduction in system troubleshooting and maintenance requirements, optimizing team efficiency.
- Methodically transformed and readied voluminous raw datasets from high-profile video games. This meticulous preparation has paved the way for comprehensive analyses that will shape the direction of subsequent research initiatives.

Teaching Assistant: **Aug 2022 - April 2023**
- Led instructional support for courses such as Business Data Visualization and Artificial Intelligence in Business, ensuring a holistic understanding for students.
- Orchestrated enriching, hands-on training sessions leveraging tools like Tableau, Excel, and SQL, thereby substantially enhancing the practical grasp and application among the student community.
- Played an instrumental role in partnering with Dr. Hina Arora to conceptualize and roll out a cutting-edge Data Science curriculum tailored for MBA students, with a keen emphasis on real-world Python applications.

Harman International; Bangalore, India   **June 2018 - Dec 2018**
Leap Engineer
- Optimized the U-Boot boot loader by 30%, drastically reducing start-up time.
- Pioneered hardening of Linux kernel configuration to significantly boost system security.

Internships; Bangalore, India   **May 2016 - Mar 2018**
- Contributed to diverse roles, such as Full Stack Developer at HealthVings, Android Developer at Kkekk Inc, and Full Stack Developer at BUY4U, building robust applications, enhancing system features, and streamlining business processes.

EDUCATION

Arizona State, Tempe, AZ   **December 2023**
Masters, Software Engineering

KIIT University   **2018**
BTech, Computer Science

TECHNOLOGIES

Programming Languages and Frameworks: Java, JavaScript, GraphQL, Golang, Python, Node.js, AWS, HTML, CSS, React.js, Bootstrap, AngularJS, Express.js, TypeScript

Databases, DevOps, and Other Tools: MySQL, PostgreSQL, Elasticsearch, MongoDB, CouchDB, Oracle, Docker, Kubernetes, Helm Charts, GCP, Azure, Ansible, Kibana, Grafana, Git, GitHub, Bitbucket, Windows, macOS, Linux/Unix, Jenkins, Playwright, Terraform, CI/CD pipelines

Additional Libraries and Technologies: Spring, Apache OpenWhisk, Kafka, Twilio, Tableau, Microsoft Excel, SQL, PyTorch, TensorFlow, Django, Flask, Redis, RabbitMQ, Apache Spark, AWS Lambda, RESTful APIs, WebSockets, Microservices, GraphQL, Jira, Confluence, Agile Methodology, Scrum, Selenium, Unit Testing, Continuous Integration/Deployment (CI/CD), Hugging Face, Generative AI, Large Language Models (LLM), Machine Learning, Supervised and Unsupervised Learning, Deep Learning, Natural Language Processing (NLP), Data Analytics, Big Data Technologies, Digital Transformation Tools, Cloud-Native Development