Abhilash Sampath

Email: iamabhilashsampath@gmail.com
LinkedIn: linkedin.com/in/abhilash-sampath
Mobile: +1 (716)-936-4550
Github: github.com/AbhilashBharadwaj

EDUCATION

- **University at Buffalo** — Buffalo, New York
  Master of Science - Computer Science; GPA: 3.83 — *Aug 2022 - Dec 2023*
  Courses: *Analysis Of Algorithms, Distributed Systems,*
  Data Intensive Computation, Reinforcement Learning, Computer Vision

- **Visvesvaraya Technological University** — Bengaluru, India
  Bachelor of Engineering - Computer Science; GPA: 3.36 — *Aug 2016 - Aug 2020*

EXPERIENCE

- **Surya Software Systems Pvt Ltd**
  Software Development Engineer II — *Sep 2021 - Aug 2022*
  - **Full-Stack Acceleration**: Spearheaded a team of 4 in creating a full-stack code generator, enhancing development efficiency by **22%** and streamlining the development process. (React, NextJS)
  - **Wrapper Library**: Accelerated organizational-wide adoption and improved productivity by masterfully developing and publishing a React, FluentUI Wrapper on npm, reducing development time by **20%** (TypeScript)
  - **Migration Architecture Design**: Formulated a strategic migration blueprint for transitioning a proprietary product from .NET to React, ensuring seamless integration and modernization. Analyzed the existing system architecture and proposed a streamlined solution. Communicated effectively with stakeholders to ensure alignment with business objectives.

- **Surya Software Systems Pvt Ltd**
  Software Development Engineer I — *Sep 2020 - Aug 2021*
  - **Comprehensive hospital app** : Independently engineered a versatile hospital management application for diverse user personas, successfully completing and delivering the project within a tight **6-month** deadline. Collaborated with offshore stakeholders to identify key requirements and ensured alignment with project objectives.
  (Angular, NestJS, MySQL, Docker)
  - **Interoperability Enhancement**: Employed innovative gRPC technology to migrate Ktor API, resulting in a substantial **28%** increase in communication speeds between company systems, bolstering overall performance. (Kotlin, Angular)
  - **Latency Improvement Initiative**: Achieved a **15%** reduction in latency on the development server by skillfully implementing nginx, fostering a more efficient and responsive environment. Leveraged strong problem-solving skills and technical expertise to optimize system performance and improve user experience. (Kotlin, TypeScript)
  - **Framework Migration Proposal**: Pioneered a Ktor API POC, laying the groundwork for the organization's framework migration from Entity Framework Core to Ktor, enhancing adaptability and efficiency. (Kotlin, Ktor)
  - **Query Optimization**: Tactfully utilized HikariCP and JDBC to elevate query response time by **18%** on a development server.

PROJECTS

- **Spam Detection for Amazon Reviews**: Utilizing Apache Spark on a **million+** Amazon reviews, implemented machine learning models, notably achieving **92%** accuracy in spam detection with Gradient Boosting Trees. The project significantly elevates e-commerce, enabling well-informed customer choices. (July '23)
- **Raft Protocol Development from Scratch**: Engineered and implemented the Raft Protocol entirely from the ground up, creating a dependable distributed log service across multiple nodes, and securing high data consistency and system uptime. (July '23)
- **Ensemble Deepfake Detection: A Video Magnification Approach Using ResNext and Xception**: Expertly harnessed these methodologies to create an advanced Deepfake detection solution, significantly enhancing content authenticity and preserving digital media integrity in a rapidly evolving landscape. (May '23)
- **Scalable DHT Development**: Successfully developed a resilient, Kademlia-inspired distributed hash table for optimal performance and scalability in complex networks. (Golang)(March '23)
- **AWS Deep Racer - Reinforcement Learning** : Crafted an ingenious custom reward function using Huber Loss, achieving a flawless **100%** completion rate and securing a distinguished position within the top **5%** (rank **147**) of **3196** participants. (Python, AWS)(November '22)
- **High-ROI Algorithmic Trading Strategy** : Created a data-driven trading strategy for intraday equity trades, achieving a minimum return of 10% and up to **30%** for TSLA stocks within a trading year. (Python) (October '22)

SKILLS SUMMARY

- **Programming and Markup Languages**: Python, TypeScript, Javascript, Golang, Java, HTML, CSS
- **Frontend & UI Libraries**: React, Redux, Angular, Vue
- **Frameworks**: Node.js, MERN Stack
- **Cloud Services**: AWS, Azure, Heroku
- **Tools**: Docker, GIT, Postman
- **State Management**: Flux, Redux
- **Platforms**: Linux, Windows