

# SHIVA SAI KUMAR PATIBANDLA

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## EDUCATION

### University of Pittsburgh

*Master of Science in Computer Science*

**Jan 2023 - Dec 2024**

*Pittsburgh, PA*

### Indian Institute of Technology, Dhanbad

*Bachelor of Technology in Computer Science and Engineering*

**Jul 2015 - May 2019**

*Dhanbad, India*

## TECHNICAL SKILLS

**Programming Languages:** C++, Java, C#, JavaScript, Python, Go, Rust

**Web Technologies:** React, Angular, jQuery, TypeScript, TailwindCSS, AJAX, REST API, SDLC, MVC, MVVM, Agile

**Other Technologies:** .NET, .NET Core, Entity Framework, Git, Docker, Kubernetes, AWS(S3, EC2, DynamoDB, Lambda), Microservices, Redis, GCP, Azure, Chameleon Cloud, Cassandra, MySQL, PostgreSQL, MongoDB, Linux

## WORK EXPERIENCE

### LevyLab

*Software Engineer*

**Feb 2023 - Nov 2023**

*Pittsburgh, PA*

- Engineered an automated Extract, Transform, and Load(ETL) pipeline using n8n to extract time-series data from Excel files in Google Drive and load into PostgreSQL, processing 17,000+ records daily.
- Developed a Java-based software pipeline for lab inventory management, enabling seamless tracking from QR code scanning to exporting product details in CSV format for improved efficiency.
- Enhanced an existing Android application by implementing Single Sign-On (SSO) integration with the Asana API to facilitate secure and streamlined team-specific authorization for LevyLab.

### Hexagon Capability Center India

*Software Engineer*

**Jan 2021 - Nov 2022**

*Hyderabad, India*

- Refactored backend code across multiple projects, optimizing algorithms and data structures to improve runtime performance by over 25%, while reducing server CPU usage, memory footprint, and disk I/O by more than 13%.
- Architected and deployed Timesheet web application, optimizing workflows for 300+ contract employees and achieving 30% reduction in processing time through advanced data management and workflow automation techniques.
- Engineered a horizontally scalable, distributed mobile application on the XALT framework with microservices architecture, complemented by an admin web application, serving 2500+ employees.
- Built a web application to interface with a remote database, dynamically displaying organizational hierarchy and employee details while efficiently managing over 30,000 records.
- Implemented SSO for Angular websites utilizing MSAL library, enabling Hexagon employees to access internal applications without requiring VPN, resulting in a more than 40% increase in application usage.
- Developed Visitor Management System project, a MVC based web application, increasing team productivity by 30%.

## PROJECTS

### SCI-GSO Website

*Skills: ReactJS, Framer-motion, Node.js, MySQL.*

**Jul 2024 - Aug 2024**

*link*

- Led full-stack development and deployment of a high-performance, cross-platform web app for SCI, architecting scalable resources to optimize data delivery for 1200+ students. Implemented efficient state management, seamless UI transitions, and optimized backend workflows for enhanced throughput and cross-device compatibility.

### MLDeployX

*Skills: C#, Python, HTML, CSS, JavaScript, Vertex AI, MySQL.*

**Mar 2024 - Apr 2024**

*Github link*

- Developed and deployed a cloud-native ML model serving platform on Google Cloud, enabling seamless user model deployment via a web app, containerized with Docker and orchestrated using Kubernetes. Integrated HPA for dynamic scaling and serverless functions for low-latency, cost-efficient real-time inference on user-supplied data.

### Group Chat System

*Skills: Bi-directional streaming, Protocol Buffers, Docker, Go, gRPC.*

**Feb 2023 - Apr 2023**

*Github link*

- Engineered a robust and scalable group chat system, empowering users to create, join, and leave groups while maintaining data consistency across 5 servers.

## LEADERSHIP & ACHIEVEMENTS

- Supervised a team of 4 in implementing SSO for Angular projects, effectively communicating requirements and progress.
- Multiple awards winner at Hexagon Capability Center India, recognized for exceptional contributions and performance.
- Indian Delegate, Harvard Project for Asian and International Relations, Asia 2021.
- Ranked in top 0.3% amongst 1.5 million candidates appearing in IIT-JEE examination 2015.