

# Rishav Kumar

hello@rishavkumar.io | rishavkumar.io | github.com/hellorishav

## EDUCATION

---

**Arizona State University**  
*Master of Science, Computer Science*

August 2024  
Tempe, AZ

## EXPERIENCE

---

### Systems Engineer Intern - Observability

May 2023 – Present

*VISA*

*Austin, TX*

- Created a robust Synthetic Monitoring System from scratch, validating metrics flow pipeline using NodeJS, PHP, Prometheus, and Grafana.
- Developed a metric generator to simulate data transmission to the metrics gateway at specified intervals.
- Designed and implemented an intuitive UI dashboard for admins, facilitating Prometheus API querying and displaying metrics, successful requests, and average latency.
- Engineered a YAML-based configuration file system and released the product as a versatile framework.
- Developed a plaintext HTTP endpoint to expose Synthetic Monitoring Metrics to be read by other applications.
- 2nd Project: Developed a dynamic JSON object editor through a user interface, reflecting in the backend Redis and MongoDB database using Java for dashboard editing by non-technical users.

### Systems Engineer Intern - Observability

May 2022 – Aug. 2022

*VISA*

*Austin, TX*

- Led development of a high-throughput Java project for consuming and producing data in a Kafka pipeline, enabling seamless streaming from a Prometheus TSDB to a Druid instance via an adapter.
- Ingested metrics data into Druid, leveraging custom authentication instances to enhance security and reliability.
- Successfully executed project plans within tight implementation and delivery time constraints, optimizing for cost, schedule, and feature richness in the Anomaly Detection Instance.
- Implemented a stable system for anomaly detection on server metrics, ensuring uninterrupted operation during 60,000 transactions per second that Visa holds capacity for.

### Information Technology Support Specialist

Sep. 2021 – Present

*Technology Strategy & Operations, Arizona State University*

*Tempe, AZ*

- Communicate with managers to set up campus computers used on campus
- Assess and troubleshoot computer problems brought by students, faculty and staff
- Assist professors on campus & remote with classroom technology support
- Maintain upkeep of computers, classroom equipment, and printers across campus

## PROJECTS

---

### Hospital Management System | *C, C++, Java, MySQL*

Sep. 2016 – Aug. 2021

- Led entrepreneurial integration of enterprise software into a health clinic, showcasing strong software development skills and business acumen
- Designed and developed a comprehensive Java-based Invoicing System and Medical Prescription Software with 200K+ lines of code. Reduced paperwork by 75% and generated 25K+ invoices
- Deployed a highly reliable, scalable, and HIPAA-compliant cloud-based online consultation solution. Leveraged AWS for seamless functionality and responsiveness during the COVID-19 pandemic, highlighting expertise in cloud technologies and software deployment

### Hosting Checker | *PHP, MySQL, JavaScript, JSON, HTML, CSS*

May 2020 – Aug. 2020

- Created and programmed a high-speed web tool to identify a website's hosting provider, IP address, location, and host contact details, 82% faster than competitors.
- Utilized PHP libraries (GeoIP, GeoIP\_ISP, and \_POST) along with IPAPI to generate JSON/XML output.
- Featured as the Product of the Day on ProductHunt.

## TECHNICAL SKILLS

---

**Languages:** Java, JavaScript, Go, HTML, CSS, C++, C, Python, PHP, Perl, Shell Scripting

**Frameworks:** React, NodeJS, Grafana, Prometheus, Kafka, Druid, Flask, WordPress, Flutter, Redis, MongoDB

**Developer Tools:** Git, Docker, AWS, Visual Studio, IntelliJ, JUnit, CLion, bare-metal Linux systems

**Concepts & Courses:** Data Structures & Algorithms, Object Oriented Programming, Advanced Computer Networking

**Awards:** Apple WWDC Scholarship Winner 2019 and 2020, Dean's List Scholar, TEDx Speaker