Prashanth Kumar

New York, United States | prashanth8983@gmail.com | linkedin.com/in/pk8983

Education

New York University **August 2024 – May 2026**
Master of Science in Computer Science *New York*

Visvesvaraya Technological University **August 2017 – August 2021**
Bachelor of Engineering in Computer Science *Bengaluru, India*

Relevant Courses

- Algorithms
- Software Engineering
- Machine Learning
- Artificial Intelligence
- Computer Networks
- Cloud Computing
- Database Management
- Big Data Analytics
- Operating Systems
- Compiler Design

Work Experience

New York University IT **January 2025 – Present**
Software Engineer *New York*

- **Full-Stack Development**: Enhanced the NYU Business Intelligence portal serving 500+ users with AWS Lambda for backend APIs and React.js for the frontend, significantly improving data accessibility and user experience.
- **Process Automation**: Automated data extraction workflows using AWS Lambda and Tableau API, replacing manual script processing and reducing runtime by 30%, enhancing report generation efficiency for 100+ users.

Kampd **August 2021 – August 2024**
Software Engineer - Backend *Bengaluru, India*

- **Microservice Architecture**: Designed and implemented 10+ core microservices (authentication, content management, community) using Golang and Node.js, improving scalability and maintainability for Kampd social media platform.
- **Media Streaming Optimization**: Engineered low-latency HLS media streaming system using Golang and FFmpeg with parallel transcoding, achieving sub-200ms segment delivery for 1,000+ concurrent streams per instance—a critical component of Kampd's video delivery system.
- **API Optimization**: Migrated legacy Node.js APIs to Golang, reducing latency by 70% (400-500ms to 120-150ms) and boosting throughput 5x (120 to 600 requests/sec per pod) for critical user-facing services.
- **Authentication System** Built configurable API authentication proxy with Golang and OAuth2 (AWS Cognito), delivering 70% performance gain, creating pluggable auth layer, and saving up to 50 development hours per new service.
- **Infrastructure Management:** Deployed and managed 60+ Kubernetes microservices on AWS EKS clusters using Terraform for infrastructure-as-code (IaC), automating provisioning while maintaining 99.9% uptime.

Data Weave **March 2021 – August 2021**
Data Engineer Intern *Bengaluru, India*

- **Data Pipeline Automation**: Engineered end-to-end web scraping pipeline using Python, Airflow, and regex, processing 1,000+ HTML pages daily with 95% accuracy while reducing manual processing time by 70% and improving data reliability by 40%.
- **Data Infrastructure**: Set up EC2 instances and Apache Kafka streaming architecture to process and analyze 100GB+ daily data points, enabling real-time analytics and supporting efficient large-scale data operations.

Technical Skills

- **Programming:** Golang, Python, Java, C#, C, C++, JavaScript/TypeScript, HTML5, CSS.
- **Frameworks & Libraries:** Gin, Node.js, React.js, Flask, ASP.NET, Tailwind CSS, TensorFlow, PyTorch, Scikit-learn.
- **Databases & Storage:** MySQL, PostgreSQL, MongoDB, Cassandra, Redis, AWS S3.
- **System Design:** Microservices, REST APIs, Distributed Systems, OAuth2, Event-Driven Architecture.
- **Cloud & DevOps:** AWS (EC2, EKS, Lambda, VPC, IAM, Cognito, RDS, ALB, API Gateway, Secrets Manager, CloudFront), Docker, Kubernetes, Terraform, Helm, CI/CD (Jenkins).
- **Developer Tools:** Git, Gitlab, Github, JIRA, Linux, Version Control, Kafka, Prometheus, JUnit, PyTest.

Projects

Blockchain Certificate Management System [GitHub] *C#, React.js, Computer Vision, Python*

- Developed a blockchain-based certificate system using C#, ASP.NET, and React.js, featuring image steganography for immutable verification. Designed for horizontal scaling and high availability, reducing security risks by 99%.

Cloud-Native Metrics Dashboard *Golang, React.js, Prometheus, Grafana, AWS*

- Built Kubernetes real-time monitoring dashboard using Golang, React.js, Prometheus and Grafana for cluster metrics.
- Added custom exporters for application-specific metrics, enabling real-time system monitoring and reducing incident response time by 65%.