Panji Pratama Kurniawan
Cloud Architect | Software Engineer | Transforming complex infrastructures into efficient & scalable systems
Banten, Indonesia
panjipratamakurniawan001@gmail.com
LinkedIn | Portfolio | GitHub

Skills Summary

- **Go (Golang)**: 5 years
- **Node.js + Express, NestJS** (Backend Frameworks): 3 years
- **DevOps Practices** (CI/CD, Infrastructure as Code): 6 years
- **Kubernetes** (GKE, EKS): 4 years
- **Terraform**: 4 years
- **Google Cloud Platform (GCP)**: 4 years
- **AWS Cloud**: 2 years
- **Docker & Containerization**: 5 years
- **Monitoring Tools** (Datadog, Jaeger, Prometheus, Grafana, Loki): 4 years
- **Security Practices** (Container Security, Secrets Management, Vulnerability Scanning): 4 years
- **Databases** (PostgreSQL, Oracle, MS SQL Server): 5 years
- **Messaging Systems** (RabbitMQ, Kafka, NATS): 4 years

About

👋 Hello! I'm Panji, a seasoned DevSecOps Engineer with a passion for crafting secure and reliable digital architecture. I specialize in implementing robust automation solutions, designing scalable cloud platforms, and fostering a culture of operational excellence.

🔧 With experience in the field, I have a track record of driving innovation and efficiency across various organizations. Currently, I'm thriving as a Senior DevSecOps Engineer at PT BFI Finance Indonesia, Tbk, where I've been instrumental in mentoring colleagues, investigating operational issues, and creating scalable deployment frameworks using Kubernetes and various IaC Tools

🚀 My journey began as a dedicated Information Technology Technician at Indomaret Group, where I honed my skills in resolving IT device issues and performing routine audits. Progressing into roles like Senior DevOps Engineer at Anabatic Technologies and Senior Site Reliability Engineer at PT BFI Finance Indonesia, Tbk, I've taken ownership of deploying products, designing robust logging and monitoring systems, and collaborating cross-functionally to optimize service delivery.

🎓 In addition to my professional engagements, I share my knowledge and expertise as an Assistant

Lecturer at Perguruan Tinggi Raharja Tangerang, where I contribute to the development of future tech leaders by teaching Programming, Cloud Computing, and Computer Statistics.

💡 My expertise lies in:
Implementing automation solutions for enhanced efficiency
Creating secure, scalable cloud platforms
Designing and maintaining deployment frameworks using Kubernetes
Developing and owning best practices for infrastructure and service delivery
Mentoring and collaborating with cross-functional teams
🌟 I thrive on challenges and am passionate about creating solutions that not only meet business needs but also exceed expectations. Let's connect to explore opportunities, share insights, and drive transformative change in the world of technology.

Work Experience

Principal DevSecOps Engineer – PT BFI Finance Indonesia, Tbk (Jan 2023 – Present)

Project: Infrastructure Automation Security Enhancement For Core System Project and LORA (Loan Origin Re-architecture) Project

Tools: GCP, Kubernetes, Golang, Python, NodeJS (Express and NestJS), ArgoCD, Terraform, Crossplane, Istio, Datadog, Helm-Chart, Github Actions, Docker, ArangoDB, RabbitMQ, Kafka, NATS, Airflow, DART

- **Overview:**
  Led the design and implementation of a Zero Trust Architecture (ZTA) across cloud and on-prem resources, enforcing identity-centric security, granular network segmentation, and continuous validation. Automated policy enforcement in CI/CD and runtime environments to minimize trust zones and reduce attack surface.
- **Role:** Principal DevSecOps Engineer architecting ZTA framework, defining policies, and integrating security into all stages of the deployment lifecycle. Also developed custom automation and microservices in Node.js using Express and NestJS to streamline deployment and integration tasks. Principal DevSecOps Engineer architecting ZTA framework, defining policies, and integrating security into all stages of the deployment lifecycle.
- **Challenges & Solutions:**
  - **Challenge: Enforcing least-privilege access across services and infrastructure**
    Solution: Implemented fine-grained IAM roles for GCP and Kubernetes with Role-Based Access Control (RBAC) and attribute-based policies. Integrated HashiCorp Vault for dynamic secrets, ensuring short-lived credentials.
  - **Challenge: Microsegmentation and network isolation without impacting performance**
    Solution: Deployed Istio Ambient Mesh with policy-based traffic control,

enabling service-to-service authentication (mTLS) and enforcing network policies at the pod level. Used Calico Typha for scalable policy distribution.
    - **Challenge: Continuous validation of security for CI/CD pipelines and runtime environments**
      Solution: Integrated OPA (Open Policy Agent) as a policy engine in GitOps workflows to validate configuration before deployment. Automated container image scanning with Trivy and vulnerability gating in pipelines. Implemented runtime security with Falco and Kyverno policies for anomaly detection.
    - **Challenge: How to automate custom integration and orchestration tasks?**
      Solution: Developed microservices in Golang and Node.js using Express and NestJS, automating infrastructure orchestration and reducing manual intervention.
- **Results:**
    - Achieved 100% enforcement of least-privilege policies, reducing unauthorized access incidents to zero.
    - Enforced microsegmentation across 50+ services with negligible latency overhead (<2ms), improving service isolation.
    - Automated policy checks caught 95% of configuration drift before production, reducing security incidents by 90%.
    - Leveraged Node.js microservices to automate orchestration tasks, reducing manual process time by 60%.

Senior Site Reliability Engineer – PT BFI Finance Indonesia, Tbk (Apr 2022 – Nov 2024)

Project: Service Lifecycle Management and Operational Stability for BRAVO Project

Tools: GCP, Kubernetes, Golang, Python, NodeJS (Express and NestJS), ArgoCD, Terraform, Crossplane, Istio, Grafana, Prometheus, Jaeger, Helm-Chart, Github Actions, Docker, RabbitMQ, Kafka, Airflow, DART

- **Overview**:
  Managed critical service delivery operations ensuring that services consistently meet SLA targets, cost efficiencies, and business expectations through structured service roadmaps, capacity planning, and continuous improvements.
- **Role**:
  Senior Site Reliability Engineer responsible for service ownership, monitoring, incident analysis, operational governance, and implementing best practices for GitOps.
- **Challenges & Solutions**:
    - **Challenge**: How to maintain service stability under increasing demand?
      Solution: Conducted proactive analysis of service availability, reliability, and capacity; implemented prioritized improvements through backlog grooming with squad engineering and service teams for Core System
    - **Challenge**: How to optimize service cost without impacting performance?
      Solution: Deployed cost tracking measures and engaged in demand forecasting to optimize resource utilization.

    - **Challenge**: How to integrate GitOps practices into service management?
      Solution: Applied GitOps principles to manage configuration and Kubernetes deployments, ensuring consistency and reliability across environments.
- **Results**:
    - Improved service stability and operational cost-efficiency.
    - Implemented GitOps workflows, improving deployment consistency and reducing errors.
    - Ensured up-to-date service documentation and lifecycle alignment with business priorities.

Senior DevOps Engineer – Anabatic Technologies (Jan 2020 – Apr 2022)

Project: DevOps Toolchain and Automated Pipelines for Banking Project

Tools: AWS, Kubernetes, Golang, Python, ArgoCD, Terraform, Cross Plane, Istio, Datadog, Helm Chart, Jenkins, Docker, KAFKA

- **Overview**:
  Developed and implemented DevOps automation pipelines to streamline software development and deployment processes, ensuring faster release cycles and improved collaboration across teams.
- **Role**:
  Senior DevOps Engineer responsible for setting up and managing DevOps tools, optimizing CI/CD pipelines, enhancing security in the software delivery lifecycle, and integrating GitOps workflows.
- **Challenges & Solutions**:
    - **Challenge**: How to improve the deployment process across multiple environments?
      Solution: Designed and implemented automated pipelines for multiple environments (development, staging, production), reducing manual intervention.
    - **Challenge**: How to address security concerns in CI/CD pipelines?
      Solution: Integrated security scanning tools into the CI/CD pipeline, automating vulnerability detection and improving security posture.
    - **Challenge**: How to integrate GitOps for faster and more reliable deployments?
      Solution: Introduced GitOps for managing infrastructure and deployments, using Git repositories to define Kubernetes configurations, ensuring automated and secure deployments.
- **Results**:
    - Increased deployment speed by 30%, reducing manual deployment errors.
    - Improved security by automating security checks and reducing vulnerabilities by 50%.
    - Successfully implemented GitOps for enhanced control and reliability in deployments.

DevOps Engineer – Anabatic Technologies (Sep 2019 – Jan 2020)

Project: Environment Setup and Automation for Microservices on Production Grade in Banking Project

Tools: AWS, Kubernetes, Golang, Python, ArgoCD, Terraform, Cross Plane, Istio, Datadog, Helm-Chart, KAFKA

- **Overview**:
  Set up and managed development, testing, and pentest environments, automating processes to improve development workflows and ensure systems are secure.
- **Role**:
  DevOps Engineer responsible for environment management, tool setup, and continuous improvement of deployment processes.
- **Challenges & Solutions**:
  - **Challenge**: How to ensure environment consistency across different stages?
    Solution: Automated environment provisioning using tools like Terraform and Ansible, ensuring consistency across dev, test, and prod environments.
  - **Challenge**: How to handle security during the deployment pipeline?
    Solution: Implemented automated security audits and vulnerability assessments in the deployment cycle.
  - **Challenge**: How to implement GitOps for environment management?
    Solution: Applied GitOps principles to manage Kubernetes configurations for environments, enabling centralized version control for deployment configurations.
- **Results**:
  - Reduced environment setup time by 40%.
  - Enhanced security and compliance by automating security checks across environments.
  - Integrated GitOps for easier and more consistent management of deployment configurations.

Information Technology Application Developer – YKK AP Inc. (Dec 2017 – Aug 2019)

Project: Fabrication System Enhancement

Tools: C#, PHP, Golang, Python, Helm, Kubernetes

- **Overview**:
  Enhanced and optimized internal fabrication systems using Oracle and MS SQL Server databases, improving system performance and interface usability.

- **Role**:
  Application Developer responsible for software maintenance, performance optimization, and feature development.
- **Challenges & Solutions**:
  - **Challenge**: How to improve performance in a legacy system?
    Solution: Refactored SQL queries and optimized database indexing, significantly improving system performance.
  - **Challenge**: How to manage data integrity during system updates?
    Solution: Implemented robust data validation mechanisms to ensure integrity during upgrades and updates.
- **Results**:
  - Enhanced system performance by 30%.
  - Improved data consistency and reduced system downtime during updates.

Information Technology Technician – Indomaret Group (Jul 2013 – Dec 2017)

Project: IT Support and System Maintenance

- **Overview**:
  Provided technical support and maintenance for IT devices across office and distribution centers, ensuring seamless IT operations and minimal downtime.
- **Role**:
  IT Technician responsible for troubleshooting hardware/software issues and performing system audits.
- **Challenges & Solutions**:
  - **Challenge**: How to ensure that IT devices remain operational during peak hours?
    Solution: Developed a preventive maintenance plan to identify and resolve issues before they affected business operations.
  - **Challenge**: How to improve IT device lifecycle management?
    Solution: Implemented an inventory management system to track device usage, maintenance, and replacement.
- **Results**:
  - Reduced IT device downtime by 25%.
  - Improved device lifecycle management, ensuring timely replacements and updates.

Part-time Job

Principal Engineer (Freelance) – Stealth (Jan 2025 – Present)

Project: Scalable Application Architecture for Renewable Energy

Tools: GCP, Kubernetes, Golang, Python, NodeJS (Express and NestJS), ArgoCD, Terraform, Crossplane, Istio, Datadog, Helm-Chart, Github Actions, Docker, ArangoDB, RabbitMQ, Kafka, NATS, Airflow, DART, GWS

- **Overview**:
  Architected and implemented both high- and low-level technical solutions using Node.js and frameworks like **NestJS** and **Express**, improving application performance by 30% and enhancing system maintainability.
- **Role**:
  Principal Engineer responsible for delivering scalable applications, optimizing performance, and ensuring maintainable code.
- **Challenges & Solutions**:
  - **Challenge**: How to scale applications efficiently and ensure high performance? **Solution**: Optimized Node.js applications, integrated asynchronous processing, and refactored inefficient code.
  - **Challenge**: How to enhance team productivity while maintaining code quality? **Solution**: Enforced coding standards and best practices using tools like ESLint and Prettier.
- **Results**:
  - Achieved 30% improvement in system performance.
  - Enhanced maintainability, leading to better collaboration among the engineering team.

Education

- **Master of Information Technology** – Perguruan Tinggi Raharja Tangerang (Sep 2022 – Sep 2024) – Grade 4.0
- **Bachelor's Degree in Information Systems** – Universitas Insan Pembangunan Indonesia (2013 – 2017) – grade 3.84
