SUKHBAT AMARTUGS

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SOFTWARE DEVELOPER

Dependable backend engineer with 5 years of hands-on experience following all phases of the Software Development Life Cycle (SDLC) to design, develop, and deploy powerful, zero downtime Django and Spring Boot based backend systems to production. Strong analytical and problem-solving abilities, able to skillfully investigate bugs, design competent microservice system architectures and resolve technical errors in software applications. Experienced in leveraging a wide array of technologies such as Spring Boot, Django, Kafka, Kubernetes, Docker, and AWS while adeptly applying them to drive innovation and deliver high-quality solutions.

● Problem Solving ● Microservice Architecture ● Efficiency Improvement ● Concurrency and Multi-Threading ● Performance Optimization ● Data Structures ● Cloud Computing ● CI/CD ● Cloud Migration

Languages: Python, Java
Web Services: REST
Web/App Servers: Nginx, Tomcat
Frameworks: Django, Spring Boot, Spring Data, Spring Security
Databases: Oracle, PostgreSQL, Elasticsearch, DynamoDB, Redis
Design Patterns: Factory Method Design Pattern, Adapter Method Design Pattern, Template Method Design Pattern
SDLC: Agile Development, Test Driven Development
Tools: Kafka, RabbitMQ, Docker, Kubernetes, ELK Stack, Bash Scripts, GitKraken
Platforms: Linux, Amazon Web Services (AWS)

PROFESSIONAL EXPERIENCE

*CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).*

HIPAY LLC, Ulaanbaatar, Mongolia ● 08/2019 – 08/2024
A leading Mongolian financial company offers financial services, comprehensive payment system.

Staff Engineer (07/2022 – 08/2024)
Core System Management and Development, Team Lead, Security & Performance, Design and Architecture
- Automated integration processes within the super-app making it SAAS feature for 3rd party services (online shops, game platform, etc.) achieving callback design pattern using Django reducing integration time by 50% and accelerating feature deployment.
- Designed and architected a new Core Banking System, leveraging Kubernetes (Docker for development) Django, Celery, Redis caching, PostgreSQL, Oracle, and Nginx for load balancing, ensuring 99.9% uptime while scaling to support a 200% surge in users.
- Led the transition to a hybrid cloud environment, utilizing AWS services (EKS, RDS, S3, Secrets Manager) cutting operational costs by 30% annually and improving fault tolerance.
- Led and developed a real time liveness and identification check functionality in the app for users utilizing AWS Liveness service, OpenCV and YOLOv5 that reduced fraud and scam incidents by 90%.
- Managed a high-traffic nationwide event project, optimizing Kafka streams, PostgreSQL query tuning, and Kubernetes autoscaling, achieving 99.95% uptime while handling burst increase in users and payments.
- Directed digital strategy that increased revenue by 40% and grew the user base by 35% over two years.
- Spearheaded the launch of 5 new financial products, integrating Two-Way Encryption, secure API gateways, and queue-based processing that are deployed hybrid with AWS Cloud and on premises, expanding market share by 25% while satisfying reliability and security.
- Led cross-functional teams to enhance user experience and established partnerships with 10+ cross-border companies, enabling seamless payments for over 1 million travelers in and outside of Mongolia.

Senior Backend Developer (12/2019 – 07/2022)
- Optimized PostgreSQL and Oracle databases, implementing partitioning, indexing, caching, and connection pooling, reducing query response times by 40% and boosting system throughput by 50%.

- Enhanced financial transaction APIs using Django, division into microservices, Redis caching to cut processing times by 35%.
- Developed 3 new financial services leveraging Django microservices, Kafka event-driven architecture, and AWS S3 for data storage, contributing to a 15% revenue boost and a 20% increase in customer retention.
- Designed and launched "Hipay" super application, utilizing Django, Symfony, PostgreSQL, and AWS Lambda, attracting 20,000 new users on its first day with zero downtime.
- Implemented a distributed task queue system with Celery and RabbitMQ, improving background job processing efficiency by 60%.
- Integrated advanced encryption protocols (AES-256, Two-Way Encryption, API Signature) and achieved secure API flow, ensuring secure financial transactions and regulatory compliance.
- Led the backend team to scale the system for a 150% increase in daily transactions, ensuring robust performance with horizontal scaling and optimized database queries.

Backend Developer (08/2019 – 12/2019)
- Built and maintained a payment gateway solution processing over 10,000 transactions daily, utilizing Django, PostgreSQL, and RabbitMQ, ensuring high availability.
- Optimized backend APIs using Redis caching and optimization of database queries, achieving a 30% reduction in response times.
- Implemented secure money transfer and bill payment functionalities, leveraging OAuth 2.0, JWT authentication, and AWS KMS, resulting in a 25% reduction in fraud incidents.
- Added online shopping and game purchase capabilities, integrating third-party payment providers (Stripe, PayPal) via secure RESTful APIs, driving a 20% boost in user engagement.
- Applied hands-on software and infrastructure management, optimizing server configurations with Nginx, improving system reliability by 35%.

Technologies Used: *Python, Java, Oracle DB, PostgreSQL, Elasticsearch, Kafka, RabbitMQ, Redis, Docker, Kubernetes ELK, Linux, AWS, Test Driven Development, Hexagonal Architecture, Microservice Architecture, Agile.*

ACADEMIC PROJECTS

Maharishi International University (2025)
Cloud Computing Project: Developed a serverless full-stack application using AWS for scalability, cost efficiency, and high availability. Automated infrastructure with AWS CloudFormation, streamlined CI/CD via CodePipeline, and built an event-driven backend with Lambda and API Gateway. Implemented Cognito for secure authentication and access control. Utilized AWS CloudFormation, Lambda, API Gateway, Cognito, CloudFront, S3, CodePipeline.

Maharishi International University (2024)
Enterprise Architecture Project: Developed an enterprise application using Spring Boot, showcasing expertise in modern Java backend development. Utilized Spring Data for efficient database interaction, Spring AOP for modular logging and transaction management, and Spring AMQP for robust messaging. Implemented optimistic and pessimistic locking for data integrity and emphasized loose coupling with dependency injection. Utilized Spring Boot, ActiveMQ, Spring Data, AspectJ, PostgreSQL.

EDUCATION

Master of Science in Computer Science
(In progress via distance education; expected completion 04/2027)
Maharishi International University, Fairfield, Iowa

Key Courses: Enterprise Architecture, Cloud Computing, Algorithms, Web Application Programming

Bachelor in Software Engineer
National University of Mongolia, Ulaanbaatar, Mongolia (06/2019)

CERTIFICATIONS

AWS Certified Solutions Architect – Associate (03/2025)
AWS Certified Cloud Practitioner (09/2024)