

Duong Van Chien

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PROFILE SUMMARY

Results-driven **Senior Software and Data Engineer** with over 10 years experiences in architecting, developing, and deploying robust, scalable full-stack applications. Possesses deep expertise across the entire software development lifecycle, from concept and design to implementation, optimization, and maintenance. Proven ability to lead technical projects, drive architectural decisions, and deliver high-quality, maintainable code. A versatile engineer proficient in both Java and Python ecosystems, with strong front-end capabilities, dedicated to bridging business needs with effective technical solutions.

Core Competencies & Technologies:

- **Backend Development:** Java, Spring Framework | Python, Django, Celery
- **Frontend Development:** JavaScript, React.js, jQuery, HTML, CSS
- **Database :** Oracle, Mysql, Data Warehouse
- **Data Processing & Analysis:** PySpark, Pandas, SQL, PLSQL
- **Infrastructure & DevOps:** Docker, AWS, Redis
- **Methodologies & Skills:** Full-SSDLC, System Architecture, Design Data Warehouse, Performance Tuning, API Design, Agile/Scrum
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EDUCATION

Bachelor's Degree in Computer Science
Ha Noi University of Industry

Sep 2010 – May 2014

EXPERIENCES

1. United Insurance Company of Viet Nam – Technical

Aug 2022 – Present

Project : End-to-End Development of UIC Report System

- **Requirement & Planning:**
Collaborated with cross-functional teams (Finance, Sales, UW, Claim Actuarial...) to gather and clarify business requirements, and design a scalable architecture for reporting and analytics. In addition, worked independently with individual departments to build tailored reports and provide reliable data solutions, ensuring that each team's operational and analytical needs were met..
- **Data Warehouse & Modeling:**
Designed and implemented a dedicated on-premise Data Warehouse decoupled from the core insurance system, ensuring reporting workloads do not impact transactional DB and application performance. Applied star schema design, partitioning, and indexing strategies to optimize query performance and scalability, accelerating complex reports multiple times and enabling advanced actuarial, finance, and sales analytics.
- **Data Pipeline & Orchestration:**
Developed batch ETL pipelines using Python (Pandas), Spark and Airflow to ingest data from Oracle, ensuring data consistency and incremental loading.

- **Reporting Optimization:**
Optimized complex SQL queries and dashboard queries (e.g., aggregations, joins) by rewriting inefficient statements and applying database tuning techniques such as indexing, partitioning, and temporary tables... These improvements significantly accelerated report generation and enhanced overall system responsiveness, enabling Finance, Sales, UW, Actuarial... teams to access insights faster and improve performance of business operation
- **Analytics & Dashboarding:**
Developed and Implemented reporting and dashboarding solution with Metabase, strategically chosen over custom development to reduce delivery time and maintenance overhead. Enabled self-service analytics for business teams with dynamic filtering, drill-downs, and export features, supporting > 80 active users while maintaining a 1-person data team.
- **Deployment & Maintenance:**
Containerized the application using Docker and managed CI/CD pipelines via GitLab.

Project : Building Digital Signature System

- **Requirement & Planning:**
Owned the end-to-end project lifecycle. Independently gathered and analyzed business requirements from stakeholders to define system specifications, technical feasibility, and the implementation roadmap for a secure and compliant digital signature solution.
- **System Architecture & Design:**
Architected and designed the entire full-stack application. Designed the database schema and defined RESTful APIs to handle document workflow, user management, and secure signature processes.
- **Backend & Core Logic Development:**
Engineered the core backend services using Java Spring Boot to manage user authentication, document processing, and the cryptographic signature logic. Ensured high security and compliance with digital signature standards.
- **Frontend Development:**
Built an intuitive and responsive user interface using React.js and JavaScript for users to upload documents, apply signatures, manage signed document, workflow...
- **Deployment & DevOps:**
Implemented Containerized the application using Docker to ensure consistency across development, testing, and production environments. Built and maintained a full CI/CD pipeline with GitLab to automate the entire process from code integration and testing to deployment, significantly improving development efficiency and release speed.

2. Fubon Life Insurance – Software Developer

May 2019 – Jul 2022

Project : Development Data Pipeline and Design Report for Agent Portal

- **Requirement & Planning:**
Collaborated with cross-functional teams to gather business requirements, and support design a scalable architecture for reporting and analytics.
- **Data Warehouse & Modeling:**
Implemented data partitioning and indexing strategies to improve query performance.
- **Data Pipeline & Orchestration:**
Developed batch Celery pipelines using Python (Pandas), to ingest data from Oracle, ensuring data consistency and incremental loading.
- **Reporting Optimization:**
Optimized complex SQL queries and dashboard queries to reduce report generation time.

- **Web Portal & Dashboarding:**

Designed and built a self-service Django-based web portal with interactive dashboards using Plotly, JavaScript, and HTML/CSS, enabling business users to dynamically filter, and export reports.

Project : Developing Agent portal

- **Requirement & Planning:**

Collaborated with the development team and stakeholders to analyze business requirements and translate them into technical specifications for the agent portal implementation.

- **System Architecture & Design:**

Architected and designed the full-stack application using Django REST Framework for the backend and React.js for the frontend. Designed the MySQL database schema and defined RESTful APIs to handle business logic and data management.

- **Backend Development:**

Developed robust backend services using Django and Django REST Framework, implementing business logic, user authentication, and API endpoints. Utilized Celery with Redis as the broker to handle asynchronous tasks and background job processing.

- **Frontend Development:**

Built a dynamic and responsive user interface using React.js with HTML5 and CSS3. Implemented server-side rendering for certain components using Jinja templating where required for optimal performance.

- **Deployment & DevOps:**

Deployed the application using Gunicorn as the WSGI server with Nginx as a reverse proxy.

Project : Maintaining and Developing Core Life Insurance System

- **Requirement & Planning:**

Owned the end-to-end project lifecycle. Independently gathered and analyzed business requirements from stakeholders to define system specifications, technical feasibility, and the implementation roadmap for a secure and compliant digital signature solution.

- **System Architecture & Design:**

Architected and designed the entire full-stack application. Designed the database schema and defined RESTful APIs to handle document workflow, user management, and secure signature processes.

- **Backend & Core Logic Development:**

Engineered the core backend services using Java Spring Boot to manage user authentication, document processing, and the cryptographic signature logic. Ensured high security and compliance with digital signature standards.

- **Frontend Development:**

Built an intuitive and responsive user interface using React.js and JavaScript for users to upload documents, apply signatures, manage signed document, workflow...

- **Deployment & DevOps:**

Implemented Containerized the application using Docker to ensure consistency across development, testing, and production environments. Built and maintained a full CI/CD pipeline with GitLab to automate the entire process from code integration and testing to deployment, significantly improving development efficiency and release speed.

TECHNICAL SKILLS

- **Programming/Scripting:** Python (Pandas, PySpark, Airflow), Java, SQL (Advanced Query Optimization), Java script, Jquery, React, HTML,CSS
- **Big Data and Data Engineering:** Apache Spark (Spark SQL), Apache Kafka, Workflow Orchestration(Apache Airflow)
- **Database Management:** MySQL, Oracle, Microsoft SQL Server, Data Warehouse.
- **Cloud and Devops:** AWS (S3, Glue, Athena...), Docker , Gitlab(CI/CD)
- **Development Workflow:** Agile, Jira, Confluence, Git Version Control

LANGUAGE

English – Fluent Communication Skills: Fluent in English for technical communication and cross-functional collaboration in speaking and writing.