

Duong Van Chien

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PROFILE SUMMARY

Accomplished **Technical Leader and Senior Software Developer** with over 10 years of experience in architecting, developing, and deploying robust, scalable full-stack applications and data platforms. Possesses deep expertise across the entire software development lifecycle, from strategic planning and architectural design to implementation, optimization, and maintenance. Proven ability to lead technical teams, drive architectural vision, and mentor engineers to deliver high-quality, maintainable systems. A versatile leader proficient in both Java and Python ecosystems, dedicated to bridging business objectives with innovative, effective technical solutions and fostering a culture of technical excellence.

Core Competencies and Technologies:

- **Backend Development:** Java, Spring Framework(MVC), Hibernate, Java EE, JPA(DDD) | Python, Django, Celery.
- **Frontend Development:** JavaScript, React.js, jQuery, HTML, CSS.
- **Database :** Oracle, Mysql, SQL Server Data Warehouse.
- **Data Processing and Analysis:** PySpark, Pandas, SQL, PLSQL.
- **Infrastructure and DevOps:** Docker, AWS, Redis.
- **Methodologies and Skills:** Full-SSDLC, System Architecture, Design Data Warehouse, Performance Tuning, API Design, Agile/Scrum, MVC Architecture, Domain-Driven Design (DDD).
- **Testing:** Junit, JMockit.
- **System Modeling:** UML Diagram.

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(Aug 2023 – Present)

Role: Technical Lead and Data Engineer.

Domain: Insurance (Financial, Actuarial, Sales Analytics).

Team and Tech: 4 members. Python, PySpark, Pandas, Airflow, Oracle, Data Warehouse, Docker, GitLab CI/CD, Metabase, AWS (S3, Glue, Athena).

- **Requirement and 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 and 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, accelerating complex reports multiple times.

- **Data Pipeline and 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 and 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 and Maintenance:**
Containerized the application using Docker and managed CI/CD pipelines via GitLab.

Project : Building Digital Signature System(Nov 2022 – Present)

Role: Technical Lead and Software Engineer.

Domain: Digital Security, Document Workflow Automation.

Team and Tech: 4 members. Java Spring Boot, React.js, JavaScript, Docker, GitLab CI/CD, MySQL, SOAP.

- **Requirement and 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 and 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 and 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 and 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.

2. Fubon Life Insurance – Software Developer

May 2016 – Jul 2022

Project : Development Data Pipeline and Design Report for Agent Portal(2020 – 2022)

Role: Senior Software and Data Engineer.

Domain: Insurance (Sales Performance and Agent Analytics).

Team and Tech: 5 members. Python, Django, Pandas, Celery, Oracle, SQL, Plotly, JavaScript, HTML/CSS.

- **Requirement and Planning:**
Collaborated with cross-functional teams to gather business requirements, and support design a scalable architecture for reporting and analytics.
- **Data Warehouse and Modeling:**
Implemented data partitioning and indexing strategies to improve query performance.
- **Data Pipeline and 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 and 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 Central Data Web Service(Jul 2017 – Nov 2017)

Role: Backend Software Engineer.

Domain: Insurance (Enterprise Integration & Data Services).

Team and Tech: 3 members. Java, RESTful APIs, Oracle.

- **Requirement Architected Centralized Data Gateway:** Designed and implemented a core RESTful Web Service using Java to serve as a single, secure data gateway for Agent Portal, Customer Portal, and the CCS (Communication) system, standardizing data access across the enterprise.
- **Developed Core Backend Services::**
Engineered backend modules to retrieve, transform, and expose data from core insurance systems through well-documented APIs, ensuring data consistency, security, and traceability for all downstream applications.
- **Deployment:**
Deployed, monitored, and maintained the service in production, ensuring high availability and performance stability for all critical business operations dependent on the centralized data layer.

Project : Development Agent Portal(Oct 2016 – Sep 2017)

Role: Senior Full-Stack Software Engineer.

Domain: Insurance (External Portal Services).

Team and Tech: 5 members. Python, Django, RESTful APIs, Celery, Mysql.

- **Requirement & Planning:**
Collaborated with the development team and stakeholders to analyze business requirements and translate them into technical specifications for the agent portal implementation and analytics.
- **System Architecture & Design:**
Architected and designed the full-stack application using Django 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 Framework, implementing business logic, user authentication, and API endpoints. Utilized Celery with Redis as the broker to handle asynchronous tasks and background job processing.
- **Data Pipeline & Orchestration:**
Developed batch Celery pipelines using Python, to ingest data from Oracle, ensuring data consistency and incremental loading.
- **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 template where required for optimal performance.
- **Deployment and DevOps:**
Deployed the application using Gunicorn as the WSGI server with Nginx as a reverse proxy.

Project : Maintaining and Developing Core Life Insurance System(Jul 2016 – May 2022)

Role: Senior Full-Stack Software Engineer.

Domain: Insurance (Core Policy Administration & Internal Operations).

Team and Tech: 11 members. Java, Spring MVC, Hibernate, Oracle, JSP, JavaScript, jQuery, HTML/CSS, Maven, Tomcat, WebLogic.

- **Requirement and Feature Development:**
Collaborated with business analysts and internal stakeholders to gather requirements, analyze needs, and plan the development of new features and enhancements for the core policy administration system used by internal teams.
- **Full-Stack Development and Maintenance:**
Developed, maintained, and optimized features across the entire application stack, implementing business logic and data access layers with Java, Spring MVC, and Hibernate, and building user interfaces with JSP, JavaScript, and CSS.
- **Backend and Database Engineering:**
Engineered robust backend services and complex database operations using Java, Spring MVC, and Hibernate to interact with the core Oracle database, ensuring data integrity, performance, and alignment with business rules.
- **Frontend and User Interface:**
Built and maintained dynamic, data-driven user interfaces using JSP, JavaScript (jQuery), and CSS to

provide internal users with efficient workflows for policy management, claims processing, and administration tasks.

- **Build and Deployment and Application Servers:**

Managed the application build process with Maven and performed deployments to Java EE application servers (Tomcat/WebLogic), ensuring stable releases and coordinating updates in the production environment.

3. Nittsu System Co.ltd – Software Developer

2014 – 2016

Project : Developing Health Care System(Jan 2015 – Jul 2016)

Role: Full-Stack Software Engineer.

Domain: Healthcare (Patient Management, Clinical Workflows).

Team and Tech: 17 members. Java EE, JPA (Hibernate), UML, Domain-Driven Design (DDD), JUnit, JMockit, JavaScript (KnockoutJS), HTML, CSS

- **Backend and Core Logic Development:**

Collaborated with business analysts and domain experts to gather and analyze healthcare business requirements. Translated requirements into detailed UML diagrams (Activity, Sequence, Class) and defined the technical design following Domain-Driven Design (DDD) principles.

- **System Design and Modeling:**

Designed the system architecture and domain model using UML to clarify data flow, business logic, and system interactions

- **Backend Development:**

Developed backend components using Java EE and JPA based on UML design and business rules. Implemented domain services, repositories, and business logic layers following DDD patterns. Applied Unit Test and JMockit to verify business logic correctness and improve code reliability.

- **Frontend Development:**

Built and integrated the frontend using HTML, CSS, JavaScript (KnockoutJS) for dynamic and responsive user interfaces. Implemented UI logic to interact seamlessly with backend services and validated end-to-end functionality.

- **Testing and Validation:**

Tested backend components using JUnit and JMockit to verify business logic and service interactions. Performed data-driven testing to validate end-to-end integration between frontend and backend, ensuring workflow accuracy and data consistency across modules.

Project : Maintaining and Developing Kinjiro CRM System(May 2014 – Jan 2015)

Role: Full-Stack Software Engineer.

Domain: Customer Relationship Management (CRM).

Team and Tech: Java EE, JPA, SQL Server, HTML, CSS, JavaScript (KnockoutJS).

- **Backend and Core Logic Development:**

Enhanced and optimized backend modules using Java EE and JPA, focusing on business logic, performance tuning, and SQL query optimization in SQL Server. Fixed production issues and implemented new data-driven features based on user needs.

- **Frontend Development:**

Maintained and developed frontend components using HTML, CSS, JavaScript (KnockoutJS) to

improve user experience and interface responsiveness. Ensured smooth integration with backend services.

- **Testing and Validation:**

Performed data-based testing to verify feature correctness, data accuracy, and workflow consistency after changes. Validated results through real business datasets instead of unit testing.

TECHNICAL SKILLS

- **Programming/Scripting:** Python (Pandas, PySpark, Airflow), Java, SQL (Advanced Query Optimization), JavaScript, 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.