LUCAS WONG

SENIOR JAVA ENGINEER | TECHNICAL MANAGER | TECHNICAL LEAD

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London, SE18 4NE 07 749 539 073

BSC (HONS) IN COMPUTER SCIENCE | MSC IN ELECTRONIC COMMERCE

SENIOR JAVA ENGINEERING | CLOUD INTEGRATION | SYSTEM ARCHITECTURE | AGILE METHODOLOGIES | MENTORSHIP

A seasoned Senior Java Engineer and Technical Leader with a solid BSc in Computer Science and MSc in Electronic Commerce, boasting 17+ years of hands-on development experience and 11+ years of leading dynamic software engineering teams. With a deep-rooted proficiency in Java technologies, cloud integrations, and designing innovative system architectures, I've consistently spearheaded projects that enhance operational efficiency and meet strategic business needs.

Having worked with prominent global organizations, I have mastered the art of legacy system transformation, strategic implementation, and agile project management. My experience spans across a variety of sectors, from media to finance, which has cultivated my adaptability to diverse technological challenges and business environments.

Recognized for my ability to innovate and implement robust solutions, I have been pivotal in mentoring both in-house and vendor teams to foster a culture of excellence and continuous learning. As someone passionate about contributing to the technological growth of organizations, I am on the lookout for the next challenging role in the Media industry that aligns with my expertise.

Right To Work: I hold a British National (Overseas) (BNO) visa, allowing me the right to work in the UK without requiring working visa sponsorship, and can provide proof upon request.

TECHNICAL EXPERTISE

• Cloud:

- <u>Amazon Web Services (AWS):</u> API Gateway, CloudFront, Elastic Compute Cloud (EC2), Elastic Container Registry (ECR), Elastic Kubernetes Service (EKS), Lambda, Route 53, Step Functions, S3 (0 5 Years of Exp.)
- Google Cloud (GCP): Google Kubernetes Engine (GKE), Google Container Registry (GCR) (0 5 Years Exp.)

Programming Languages:

- Java (including Java17/Java11/Java8) (15+ Years of Exp.)
- JavaScript, JSON, jQuery, PL/SQL, SQL (10 15 Years Exp.)
- C++, HTML, XML (5 10 Years Exp.)
- Apex, C#, CSS, Python, TypeScript, VB.NET, VBScript, Visualforce Pages, YAML (0 5 Years Exp.)

Technologies:

- Bitbucket, Docker, Git, GitHub, Jenkins, Jira, JUnit, Tomcat, Microservices, REST API, SOAP, Spring, Spring Boot (5 10 Years Exp.)
- Ansible, Confluence, Gradle, Hibernate, In-memory databases (IMDBs), JPA, Kafka, Kubernetes, Maven, Mockito, NoSQL, Salesforce, Spring Cloud, Terraform, WordPress (0 5 Years Exp.)

Database:

- SQL Server (10 15 Years Exp.)
- Oracle (5 10 Years Exp.)
- DynamoDb, H2, MongoDB, MySQL, PostgreSQL (0 5 Years Exp.)

OS:

- Linux (e.g. Debian, Red Hat, Ubuntu), Windows Server (10 15 Years Exp.)
- Unix (Solaris) (0 5 Years Exp.)

AREAS OF EXPERTISE

Behaviour-Driven Dev (BDD)
DevOps culture and practice
Incident Management
End-to-End Solutions
Technical Decisions
Technical Solutions
System Integration
CI/CD pipelines

Defining Non-functional/Security Requirements
Software Development Life Cycles (SDLC)
System/Software Architecture Design
Test Driven Development (TDD)
Delivering Innovative Solutions
Modern Microservices Systems
Revamping Legacy Systems
OOP SOLID principles

Content Management System (CMS)
Lead Onshore/Offshore Team
Development to Transform
Training Developers
Agile Methodologies
Backend Systems
System Security
UML

KEY COMPETENCIES

- **Leadership:** Inspiring leader with gravitas. Demonstrates broad technical and commercial knowledge, initiates change and drives a results-driven, innovative approach.
- **Communication:** Outstanding communication skills, with ability to deliver relevant information and articulate. complex IT concepts to non-IT audiences, from board level to end-users.
- Analytical Thinking: Applies critical thinking and fact evaluation in order to solve technical problems.
- Collaboration: Effectively works with team members in order to achieve a shared goal/outcome.
- Problem Solving: Expert in tracing faults via a diagnostic approach and providing strategic technical solutions.
- **Results Driven:** Seamlessly identifies, assesses and controls technical risks and leads the team through challenges in order to achieve and exceed the desired results.
- Adaptability: Swiftly adjusts to changing settings and obstacles to suit the needs of the task at hand.

KEY STRENGTHS

- · Expertise in Java, Spring, and cloud platforms like AWS and Kubernetes.
- · Agile and iterative development methodologies.
- Legacy system transformation and integration.
- Leadership in mentoring junior team members and collaborating with senior leadership.
- Strong analytical skills, enabling problem diagnosis and solution implementation.

Ready to contribute to forward-thinking initiatives, making a tangible impact in optimizing low latency response times and driving long-term product roadmaps in the Media industry.

QUALIFICATIONS

- MSc in Electronic Commerce, City University of Hong Kong, 2008
- BSc (Hons) in Computer Science, City University of Hong Kong, 2006
- Verification: www.naric.org.ukverification (NARIC Reference number: 4000837429)

Technical Manager – Application Development The Hong Kong Jockey Club Hong Kong

October 2022 – January 2023

A world-class racing club established in 1884 with a unique integrated business model of world-class horse racing and racecourse entertainment, responsible sports wagering and lottery, and charities in Hong Kong.

Duties and Responsibilities:

- Developed and implemented technical designs and solutions for new features, leading the Engineers towards enhancing the racing wagering applications, resulting in a more clear and convenient environments for lottery players to place bets
- Undertook strategic incident management and technical leadership for production issues and resolved issues by collaborating with teams to identify root causes and devise technical solutions
- Provided technical advice, architecture and system design for transforming legacy systems into modern microservices.
 (The Java Spring Boot microservices applications to Docker or Kubernetes on the cloud with innovative ideas for replacing the legacy C++/C# applications after transformation)
- Tactically monitored and managed the deployments of the software engineering team:
 - Prepared new deployment processes for application modules, further automating the configuration of environment settings for deploying applications
 - Designed, configured and implemented the new deployment processes on UCD, further automating the deployment processes for automated deliveries. This led to the enablement of the team to more efficiently deploy deliveries afterwards
 - Successfully controlled the deployment processes of the applications to various environments with UCD, following quality assurance of the developer's deliverables
- Effectively improved the efficiency of the future software testing life cycle (STLC) by designing and implementing 2 automated test environment preparation modules for the team's application modules:
 - Designed and implemented an application module, which replaced complex manual steps to set up and launch dozens of overseas racing user simulators for the Engineers for end-to-end testing. This resulted in all simulators being automatically created with just a double-click action, instead of manually setting them up
 - Produced and deployed an application module that could automatically housekeep and prepare the database data
 of the target test environment, by using the data from other healthy environments when the data in the test
 environment was corrupted in a failed test. This led to Test Engineers not needing to manually prepare the data
 for the test
- Provided coaching and mentorship and reviewed code for Software Engineers, whilst preparing the application's structure and test cases (for TDD) to guide development and ensure quality. This resulted in the software being delivered flawlessly and to a high quality

Accomplishments:

- Provided technical advice, architecture and system design for transforming legacy systems into modern microservices
- Successfully led and conducted quality audits of software engineering teams during the software development life cycle (SDLC)
- Provided exceptional mentorship and managed the software engineering team to deliver high quality results and resolve production incidents with long-term solutions
- Drove additional automation solutions to further improve the DevOps efficiency of the software engineering team

Primary Technologies Utilized:

- <u>Cloud:</u> AWS Elastic Kubernetes Service (EKS), Elastic Container Registry (ECR); Google Cloud Google Kubernetes Engine (GKE), Google Container Registry (GCR)
- <u>Database</u>: MS SQL, PostgreSQL
- Programming Languages: C++, C#, Java 11, MS SQL stored procedure, PowerShell script, VBScript
- <u>Technologies:</u> Confluence, Docker, Git, IBM UrbanCode Deploy (UCD), Jenkins, JFrog, Jira, JPA, JUnit, Mockito, Kubernetes, Maven, REST API, Splunk Log Observer, Spring Boot, Spring Cloud

Tech Lead (Contract) TransUnion Limited Hong Kong

October 2021 - October 2022

A U.S.-based consumer credit reporting agency. TransUnion International acquired the Hong Kong Credit Information Co. Ltd., the predecessor of TransUnion LLC in 1999.

- Held role as technical software engineering lead in an agile team in order to develop a Multiple Credit Reference Agency (MCRA) project from scratch
- Drove the project to result in the company cooperating with the MCRA Model carried out by the Hong Kong government and continuing to provide credit references services for Hong Kong people

Tech Lead (Contract), TransUnion Limited, Continued/.....

- Strategically collaborated and interacted with technical and business teams:
 - Initiated and led business requirements gathering and provided solution recommendations based on technical knowledge, while collaborating with the business analyst team and stakeholders:
 - o Identified gaps in business requirements from a technical perspective and collaborated with the business analysis team to remediate business requirements, together with stakeholders
 - Managed the development to reprioritise, updated timelines and made revision decisions to guide the development team towards delivery
 - Collaborated with the technical teams to integrate the newly developed Java microservices system with the C++ legacy core credit reference system
- Provided innovative system architecture design and defined scalable, low latency and reliable multi-instances of microservices system design patterns from scratch, aligning with business needs and the need for integration with existing systems
- Drove the new system towards working perfectly, not only with the newly carried out MCRA schema, but also with the
 existing legacy C++ core credit rating and reference system of TransUnion HK
- Ensured best practice and the quality of deliveries by provided guidance to Software Developers. Provided application structures and prepared test cases for TDD guidance using JUnit and Mockito and planned end-to-end tests to ensure quality
- Tactically led and monitored the development progress and status of Offshore Developers
- Provided and delivered various security solutions required for multi-level protection of sensitive credit reference data during data transfer of REST API calls, which resulted in the security of sensitive credit rating/reference information being fully guaranteed during transmission
 - Only accept the API call form the caller with valid access token by using OAuth2 JWT Bearer Flow
 - Encrypt/decrypt sensitive data using the secret symmetric key known only by the caller and receiver
 - Encrypt/decrypt the secret symmetric key using the public/private key of the X.509 certificate
- Drove the improvement of processes for estimating, implementing, system troubleshooting and production support through the new microservices architecture design and newly delivered application modules
- Identified, designed and delivered additional microservices applications, which led to an improvement in the efficiency
 of MCRA's Software Development and Testing Lifecycle (SDLC & STLC); and benefiting future BAUs
- Implemented and enforced core design components, aligning with software development best practices
- Trained new Junior Developers in modern Java knowledge while still being able to leverage for development at the same time, through coaching across the application architectures. This allowed the team to fully commit to assisting with development tasks in a short time period

Accomplishments:

- Led offshore development teams across the SDLC and STLC for new systems, resulting in high quality delivery
- Delivered new and modern microservices system architecture designs from scratch with innovative ideas and delivered solutions with quality
- Developed a scalable, secure and reliable multi-instance microservices system
- Strategically led system integration decisions and designs between modern microservices systems and legacy systems
- Delivered security solutions to enhance data security.
- Drove the implementation of non-functional solutions to improve the efficiency of SDLC & STLC and also benefit future BAU
- Coached and developed Developers at the junior beginner level, whilst enabling them to work on in development tasks

Primary Technologies Utilized:

- Database: H2, MongoDB, PostgreSQL
- Programming Languages: Java 11/17, JSON, YAML
- <u>Technologies:</u> AES-256 (for symmetric-key approach), Ansible, Confluence, Git, In-memory databases (IMDBs),
 Jenkins, JFrog, JPA, JUnit, Maven, Mockito, Kafka, OAuth2 JWT Bearer Flow, REST API, Splunk Log Observer, Spring
 Boot, Spring Cloud, Symmetric-key for data encryption/decryption, X.509 certificates for Public/Private Keys for
 symmetric-key encryption/decryption etc.

Systems Analyst Cigna HK Hong Kong

March 2019 - September 2021

The Cigna Group is an American multinational managed insurance and healthcare company, ranking #13 on the 2020 Fortune 500 List

Duties and Responsibilities:

Produced application designs, implemented technical solutions and enhanced applications for Sales team,
Telemarketing team, the Underwriting team and the Customer Service team. Led Developers to deliver high-quality
solutions, which enabled the teams to serve both existing and potential customers more efficiently, so that the sales
of the insurance products could be increased without the needs of increasing manpower

Systems Analyst, Cigna HK, Continued/.....

- Effectively managed vendors and provided coaching and mentorship to Programmers, ensuring they were able to deliver high-quality solutions and meet project schedules on time
- Defined and provided test cases for leading programmers to effectively achieve delivery goals in a TDD approach, whilst providing code reviews and executing unit tests to ensure delivery quality
- Provided suitable application designs for new application functions and suitable high-quality solutions for application enhancements, which led to an improvement in the work efficiency of colleagues in various departments and enabled an easier method for new colleagues to get started
- Participated in the Agile Software Engineering and Testing Lifecycle (SDLC & STLC), transformed multiple J2EE application modules from legacy Enterprise Archive (EAR) to application server-independent scalable microservices using Spring Boot and Spring Cloud, as the images for Docker or Kubernetes
- Successfully managed production incidents and provided long-term solutions to solve problems and prevent the same problem from happening again in the future. This resulted in the frequency of production issue being greatly reduced.
- Collaborated with business teams and advised on business solutions based on technical knowledge, whilst leading and worked with Developers in the high-quality deliveries of solutions to stakeholders
- Drove technical solutions for multi-programming languages system integration activities and led Software Engineers to implement and deliver using them

Accomplishments:

- Successfully mentored and led vendors and Onshore/Offshore Software Developers to achieve high quality delivery
- Led Developers to identify root causes and effectively delivered long-term solutions to production incidents
- Strategically transformed legacy systems into modern scalable and reliable microservices systems
- Implemented technical designs and solutions for complex multi-technology systems integration
- Collaborated with business and technical teams in the SDLC/STLC life cycle under an Agile methodology

Primary Technologies Utilized:

- <u>Cloud:</u> AWS API Gateway, CloudFront, Git, Lambda, Route 53, S3, Step Functions, S3; Google Cloud Google Kubernetes Engine (GKE), Google Container Registry (GCR)
- <u>Database:</u> H2, MS SQL, PostgreSQL, Salesforce's objects (as tables of database)
- <u>Programming Languages:</u> Apex, C#, DB2 stored procedure, In-memory databases (IMDBs), Java 8/11, JavaScript, jQuery, JSON, MS SQL stored procedure, Python 3.9, VB.Net, Visualforce pages
- <u>Technologies:</u> Docker, Hibernate, IBM WebSphere, J2EE, Jenkins, Jira, JPA, JUnit, Kubernetes, Maven, REST API, Salesforce, Spring Boot, Spring Cloud, SOAP

Senior System Analyst China Construction Bank Asia Hong Kong

July 2019 - February 2021

China Construction Bank Corporation (CCB) is one of the "big four" banks in China.

- Participated in collaborates with the business teams to collect business requirements together and provide business
 design advices based on technical knowledge to develop a new bank-securities transfer system in Hong Kong (HK)
 from scratch.
- Collaborated with the technical teams of Chinese securities companies in Hong Kong, discussed and made B2B system
 integration decisions based on their companies' existing systems, and provide technical solutions and data formats for
 the development and integration of Bank-Securities Transfer services system.
- Provided software architecture designs and led software engineers to deliver the electronic banking system modules, including:
 - Led the software engineers to complete the deliveries of the new low latency Bank-Securities Transfer System in Hong Kong from scratch.
 - Led the software engineers to complete the transformation of the web pages and branch screen displays of the following 3 e-banking applications, which are integrated with the open API of the Hong Kong Monetary Authority (HKMA) and integrated with the Beijing headquarters systems for management purposes, including:
 - Deposit rate inquiry/display application.
 - Exchange rates inquiry/display application.
 - o Gold price inquiry/display application.
- Participated in project estimating and cost estimating for the above application development.
- Provided application architecture, technical solutions, and practical guides, testing cases to meet, logic and code reviews to ensure the vendor and software engineers can deliver products with high quality and meet project plans.
- Due to time constraints and limited number of software engineers, I implemented some modules by myself and fixed some bugs by myself after testing also.
- Collaborated with the technical teams in mainland China to provide system integration technical solutions and deliveries.

Senior Systems Analyst, China Construction Bank Asia, Continued/.....

• Collaborated with the technical teams in mainland China to provide system integration technical solutions and deliveries.

Accomplishments:

- Successfully collaborated with multiple 3rd parties, providing technical solutions for seamless integration with their systems and achieving high-quality outcomes.
- Mentored and guided software engineers and vendors, resulting in the successful delivery of projects with exceptional quality and adherence to project schedules.
- Provided application architectures and technical solutions for system revamps and integrations, delivering high-quality results.
- Led software engineers and vendors in the development of high-quality applications through effective application architecture designs and rigorous quality assurance practices.
- Actively participated in hands-on implementation, demonstrating a versatile skill set by both leading development teams and engaging in practical implementation when necessary.

Primary Technologies Utilized:

- Database: H2, MSSQL
- Programming Languages: HTML5, Java, JavaScript, JSON, MS SQL stored procedure, SQL, XML
- <u>Technologies:</u> Apache Ant, Crystal Reports, Hibernate, IBM WebSphere, J2EE, Jira, SOAP, Spring MVC, SSIS Packages, Open APIs of HKMA etc.

Systems Analyst Prudential Hong Kong Limited Hong Kong

August 2016 - July 2018

An insurance subsidiary of Prudential Corporation Asia, headquartered in London and Hong Kong

Duties and Responsibilities:

- Provided mentorships to guide programmers and get hands-on in transforming the application modules of the legacy J2EE Spring application from an Enterprise Archive (EAR) to a modernized and enhanced microservices using Spring Boot to Docker for the planned step-by-step and scoped transformation plans.
- Led and collaborated with programmers together to deliver new modules to handle premium levy on insurance policies in accordance with Hong Kong Insurance Authority policy.
- Designed and developed customer portal modules for policy customers to check their own policies and portfolios and receiving acknowledgement.
- Designed and developed insurance customer and policy management systems for agents and operations teams to facilitate their business efforts such as electronic insurance policy signing (e-Signature), Medical Enrolment, and e-Welcome Kit (used to replace human resources of HR for dealing with new insurance agents on boarding procedures).
- Designed and developed a data synchronization system for data synchronization between different DBMS (DB2 and Informix).
- Provided incident management for various production incidents reported by internal users and external customers: performed diagnosis of incidents, use error logging tools to centralize incident-related logs for diagnosis, assigned appropriate classification to each incident, perform resolution and recovery, conducted user satisfaction surveys and completed incident documentation. Implement the long-term solutions and roll out to production to fix the incidents.
- Prepared application architecture and technical design documents, test plans, and implementation plans.
- Used HP Fortify to ensure the quality of applications developed through code scanning, and fine-tune applications based on the scanning results.
- Provided technical requirements and design walkthrough to cross impacted teams and users.
- Provided technical solutions to project stakeholders and collaborate with vendors and internal programmers to achieve high-quality deliveries.
- Provided application architectures, guided programmers to implement the logic flow correctly, and led programmers to deliver projects on time and with high quality.
- Also participated in hands-on implementations with programmers to further improve development performance.

Remarks:

• About "premium levy on insurance policies" in HK: https://www.ia.org.hk/en/infocenter/faqs/faqs_levy.html

Accomplishments:

- Successfully mentored and led vendors and Onshore/Offshore Software Developers to achieve high quality delivery
- Successfully transformed legacy J2EE Spring application modules in EARs into modern, enhanced Spring Boot microservices as part of comprehensive transformation plans.
- Demonstrated effective leadership skills by leading in-house programmers and vendors, ensuring timely delivery of projects while maintaining high quality standards.
- Provided suitable technical solutions and delivered high-quality application architecture designs, contributing to the success of various projects.
- Proficient in incident management and resolving production issues by providing effective technical solutions.

Systems Analyst, Prudential Hong Kong Limited, Continued/....

 Possess extensive experience in Java technology development, leveraging expertise to deliver robust and efficient solutions.

Primary Technologies Utilized:

- <u>Cloud:</u> AWS EC2, S3, Lambda; Google Cloud Google Kubernetes Engine (GKE), Google Container Registry (GCR)
- Database: DB2, Informix, MongoDB
- <u>Programming Languages:</u> DB2 stored procedure, HTML, Informix stored procedure, Java, JavaScript, jQuery, JSON, JSP, JSTL, Linux Shell Scripts, Python
- <u>Technologies:</u> Apache Ant, Docker, Git, HP Fortify, Hibernate, Hudson, IBM MQ, IBM WebSphere, J2EE, Jenkins, Jira, JUnit, REST API, SOAP, Spring Boot, Spring Cloud, Swing etc.

Analyst Programmer Centre for Health Protection Hong Kong

May 2012 - August 2016

The CHP is responsible for disease prevention and control in Hong Kong. CHP plays the same role and function as the Centres for Disease Control in the United States, and the European Centre for Disease Prevention and Control in the European Union (EU).

Duties and Responsibilities:

- Responsible for the development of the following systems:
 - Communicable Disease Information System (CENO) (https://cdis.chp.gov.hk/CDIS_CENO_ONLINE/ceno.html): the public health informatics systems for medical professionals to access and report the latest healthcare information,
 - Terminology system: an easy searchable and filterable data dictionary provides relationships of medicine names, patient symptoms effect, side effects for helping medical professionals to make medical decisions,
 - Address Data Infrastructure (ADI): a public health address locating system and search engine for matching patients with most suitable and closest medical institutions, hospitals and clinics according to their location, which were developed with technologies like: Apache HTTP server, Java, J2EE, JSP, SOAP, Oracle, MS SQL, JavaScript and jQuery, etc.
- Designed and developed the solutions for Java applications under Microsoft Team Foundation Server (TFS), which
 achieved Eclipse IDE pull source code from TFS and build, and then trigger & perform remote deploy applications to
 the target environments in auto delivery way, for CENO, ADI and Terminology systems, with Apache Ant, Codehaus
 Cargo, Microsoft PsTools and batch scripts created by VBScripts and command prompt scripts. Thus, DevOps
 efficiency is further improved.
- Provided application designs and performed quality control processes for system development with vendor:
 - eLead: System for doctors and medical institutions to report lead water cases, report and check medical followup progress.
- A solution designed and developed for Java-based systems and manual users capable of writing event logs to the Windows Event Viewer by implementing a C++ DLL for Java applications and providing a thick client for Linux and Windows manual users also using C++ and wxWidgets.
- Developed the health informatics reports with SAS Enterprise Guide.
- By reviewing the vendor's code, analyse and find out how the report data and charts are formed, and ensure that their products can meet the requirements. (By writing Marco for Excel and using SAS Integration Studio, SAS Enterprise Guide etc.).

Accomplishments:

- Recognized as an excellent team player with a proven track record of delivering projects with high quality and adherence to schedules. (Reference letter available)
- Demonstrated ability to quickly learn new technologies, as attested by a reference letter.
- Seasoned software engineer proficient in multiple programming languages.
- Successfully developed and delivered solutions encompassing multiple programming languages.
- Led supplier development teams to achieve high-quality deliveries.
- Provided mentorship to vendor's development teams and coached programmers, resulting in the delivery of highquality deliverables.

Primary Technologies Utilized:

- Database: MS SQL, Oracle
- <u>Programming Languages:</u> C++, Excel Marco, HTML5, Java, JavaScript, JSON, JSP, jQuery, MS SQL stored procedure,
 Oracle stored procedure, SQL, VBScript
- <u>Technologies:</u> Apache Ant, Code::Blocks, Codehaus Cargo, Hibernate, J2EE, JBoss, Jira, JUnit, Microsoft Team Foundation Server (TFS), PSTools, SAP BusinessObjects, SAS Integration Studio, SAS Enterprise Guide, SOAP, Tomcat, wxWidgets

Software Engineer MTR Corporation Hong Kong

MTR Corporation operates the Mass Transit Railway (MTR) in Hong Kong.

Duties and Responsibilities:

- Transformed and enhanced the legacy C++ Station Accounting Computer (SAC) system into the new Java J2EE Universal SAC (USAC) system. (USAC is the station computer system of each MTR station, which can control station equipment (such as value-added machines, gates, ticket machines, etc.), and processes data from station equipment (such as recording, organizing and uploading transactions to the headquarters).
 - In this transformation project, also experienced in hands on implementation and collaborated with the vendor's software engineers together to deliver a high-quality product.
- Based on Java technology, managed and developed the Universal Station Computer (Universal SAC) development
 project for processing and organizing data from station equipment and controlling station equipment at each MTR
 stations, also prepared documentation, prepared test modules (for TDD), execute UAT and oversees other testing,
 quality control, oversees and helps managed vendor, fixes bugs, ensures suppliers' development meets quality
 requirements, etc.
- Maintained and enhanced system components of West Rail SAC and East Rail SAC under CMMI to implement
 enhancements, and implemented Central Authority servers into the MTR stations using SQL, C++, and MS SQL
 replication, MS SQL stored procedures.
- Prepared and presented technical specifications, test plans, test cases, installation guides and user manuals to allow stakeholders to easily get started with the system.
- Led the junior IT operation and maintenance personnel to test to ensure that the product meets the requirements, the product quality is high, and the operation performance is good.

Accomplishments:

- Demonstrated strong organizational skills and effective interpersonal and communication abilities, as validated by a reference letter.
- Extensive experience in the redesign, development, and transformation/revamp of legacy systems into modern and enhanced systems using Java technologies.
- Provided mentorship to vendors' software engineers, enabling them to deliver high-quality products.
- Proficient in creating test modules and plans, conducting QA and QC activities for Test-Driven Development (TDD) purposes, and diagnosing problems to ensure delivery quality.
- Seasoned software engineer skilled in multiple programming languages.
- Led testing efforts to execute comprehensive end-to-end testing.

Primary Technologies Utilized:

- <u>Database:</u> MS SQL, Oracle
- Programming Languages: C++, Java, JavaScript, Jira, jQuery, MS SQL stored procedure, MySQL, SQL
- Technologies: J2EE, JUnit etc.

Programmer Sun Tech International Group Limited Hong Kong

February 2019 – June 2021

A total solution provider of e-learning and e-classroom solution, and energy efficiency solution.

- Collaborated with sales and marketing teams and foreign distributors in Japan, Korea, Australia and Southeast Asia and gathered business requirements.
- Provided appropriate technical solutions, and prepared functional specifications and system specifications.
- Designed and developed key educational software products for educational institutions using C/C++/VB.NET MFC, thick client applications such as:
 - Classroom Audience Response System (XPRESS) and Classroom Management System (XCLASS), combined with electronic hardware devices through hardware drivers (interfaces in DLL modules).
- Designed and developed automatic software update solutions for all key products with multiple DLLs application
 design and J2EE endpoints for new update check, download, integrity check and trigger application version updates
 and version upgrades.
- Designed and developed employee management software products, such as attendance management system developed with C++ and VB.NET.
- Designed and developed remote mass deployment solutions using C++, MFC and Flexera InstallShield for all thick client products such as:
 - After the teacher's application was installed, it will automatically transfer the student's applications and trigger remote delivery and installation to the student's computer on the same intranet.
- Designed and developed a J2EE customer relationship management (CRM) system implemented using Java and MS SQL for sales and marketing users to improve their work efficiency.

Programmer, Sun Tech International Group Limited, Continued/.....

- Designed and developed user-friendly GUI installers for all thick client application products using Flexera InstallShield so that all our customers can easily install our products during a manual installation processes.
- Extensive experienced in leading offshore junior software engineering teams in Beijing and Shenzhen.
- Have business travel experience, such as participated in the Jakarta Technology Exhibition and provided technical supports.

Accomplishments:

- Consistently provides valuable advice, engages in discussions around inspiring ideas and concepts, and effectively collaborates with team members. (Reference letter available)
- Led offshore junior software engineering teams, ensuring the delivery of high-quality products.
- Proficient in multiple programming languages, showcasing expertise as a software engineer.
- Collaborated with multinational partners and engaged in business travel as part of project engagements.
- Skilled in designing and developing customer-friendly web and thick-client software products, catering to the specific needs and preferences of clients.

Primary Technologies Utilized:

- Programming Languages: C, C++, Flexera InstallShield, Java, VB.NET
- Technologies: dynamic-link library (DLL), J2EE, Microsoft Foundation Class Library (MFC), MS SQL

Application Developer Wharf T&T Hong Kong

May 2007 - February 2008

Now named as "WTT HK Limited", was the second largest fixed line telecommunication operator in Hong Kong.

Duties and Responsibilities:

- Hands-on development of a portal and a suite of management subsystems and web portals for the framework project, using Java, J2EE, JSF, SQL, and Oracle stored procedures.
- Enhanced system using C++ and Edify to record, collect and reconcile call match data for unmatched calls between Wharf T&T and other telecommunications service providers, for corporate analysis, diagnostic and accounting purposes.
- Developed the online customer surveys using ASP to gather consumer feedback.
- Developed a salary review and reporting application for hiring managers and human resources using Excel and VBA.
- Generated customer billing reports for business stakeholders using SQL in MS SQL Server 2000 environment.
- Developed Interactive Voice Response (IVR) Service (Call Centre Solution) for TVB Pay Vision (Pay TV Service) using Edify and C++.

Accomplishments:

- Recognized as a helpful, patient, and valuable team player, consistently delivering above-average performance. (Reference letter available)
- Seasoned software engineer proficient in multiple programming languages.
- Experienced in hands-on development of web and backend applications, displaying a strong understanding of their intricacies.
- Skilled in application-specific macro programming, leveraging this expertise to develop tailored solutions.

Primary Technologies Utilized:

- Database: Oracle
- <u>Programming Languages:</u> Active Server Pages (ASP), Java, Oracle stored procedure, SQL, Visual Basic for Application (VBA)
- <u>Technologies:</u> Edify (an all-in-one contact centre and unified communications solution), <u>J2EE</u>, JavaServer Faces (<u>JSF</u>), Jira

Programmer AFE Solutions Hong Kong

May 2006 - May 2007

AFE has been a leading provider of financial information and trading software and solutions, headquartered in Hong Kong. It has significant operations in Vietnam, Thailand and Macau.

- Developed and improved systems for collecting, organizing, analysing, calculating and delivering high-frequency realtime financial and securities market information, insights and pricing information such as:
 - Developed real-time processing system modules with C++. The system processes, broadcasts and transmits the latest financial data provided by Reuters to the AFE Stock Channel (ASC) client of our corporate customers in real time through TCP and UDP socket data packets.
 - Developed ASC, which is a C++ MFC Windows application for corporate customers to obtain the latest global financial information and insights, with a user-friendly query and display UI to help users monitor and analyse financial market information.

Programmer, AFE Solution, Continued/.....

• Assisted in data centre migration to new physical site, such as participating in environments and software setups. Developed a financial information and insights web application using ASP.

Enhanced and upgraded internal Windows application - DBATools for database administrators and data administrators with C++, MFC, SQL and stored procedures for MS SQL and Oracle DBMS.

Accomplishments:

- Proficient in technical designs and hands-on development of real-time computing applications, specifically focusing on processing data and events within strict time constraints.
- Skilled in hands-on development of both web and thick client applications, demonstrating versatility across different application types.
- Experienced in setting up various environments, including production environments, ensuring smooth and efficient system deployments.

Primary Technologies Utilized:

- <u>Database:</u> MS SQL, Oracle
- Programming Languages: ASP, C++, HTML, MS SQL stored procedure, Oracle stored procedure, SQL
- <u>Technologies:</u> Microsoft Foundation Class library (MFC), TCP, UDP

Analyst Programmer Hong Kong Housing Authority Hong Kong

July 2004 - July 2005

The Authority is a statutory body responsible for supporting the Transport and Housing Bureau in the development and implementation of the local public housing programme in Hong Kong.

Duties and Responsibilities:

- Participated in the Housing Construction Management Enterprise System (HOMES) project.
- Developed the prototypes of Personal Digital Assistant (PDA) data acquisition Windows mobile application using C++
 and MFC, a site and construction inspection system for civil engineers to capture, record and synchronize structural
 quality-related data and synchronize the data to the Housing Authority Headquarters for construction quality
 management purposes.
- Developed the prototype of a reader-friendly data presentation modules using DHTML, XML, and XSLT.
- Created digital reports using Cognos Report Studio based on inspection data collected by the prototype, and participate in problem report diagnostics.
- Defined and documented test cases and test results to ensure applications quality.

Accomplishments:

- Acknowledged as a fast learner of new technologies, capable of quickly adapting without extensive assistance from supervisors. (Reference letter available)
- Skilled in hands-on development, problem diagnosis, and testing activities related to thick clients and reporting modules.

Primary Technologies Utilized:

- Programming Languages: Embedded C++, DHTML, eXtensible Stylesheet Language (XSLT) and XML
- <u>Technologies:</u> Microsoft Foundation Class library (MFC)

CERTIFICATIONS

- Salesforce Certified Administrator, Salesforce, 2019
- Verification: https://trailhead.salesforce.com/credentials/verification (Key: lawrencelewiswong@gmail.com)

LANGUAGES

English: ProfessionalCantonese: NativeMandarin: Intermediate

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