Sum Wan FU

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Portfolio (amplifyapp.com) | https://github.com/fusumwan

CAREER PROFILE

With over three years of specialized experience in **Java**, **Spring MVC**, **Spring Boot**, and **Hibernate**, complemented by six years of proficiency in **Asp.net C#, SQL**, I am a seasoned Full-Stack Developer. My expertise extends to using **React JS , Jquery** and **JS** for **front-end** development, where I focus on creating cohesive and dynamic user interfaces. In addition to my current studies, I am actively expanding my expertise in **cloud technologies**, with a particular focus on **Amazon Web Services (AWS)**. As a graduate in Computer Science from the University of Adelaide, my academic background has fostered a profound interest in Artificial Intelligence and Machine Learning. This interest is driven by a commitment to leverage **AI** and **RAG** technology for societal advancement by using **Python**, **Django**, **Fastapi**, **Langchain**, **Chroma** and **Tensorflow**. My approach to development is characterized by a combination of enthusiasm, adaptability, and creativity, allowing me to devise and implement robust technological solutions that align with organizational goals. I am particularly adept at integrating Machine Learning techniques with streamlined web applications, optimizing them for maximum utility and efficiency. My ultimate goal is to contribute meaningful, innovative solutions that resonate with both the company's objectives and the broader technological landscape.

RELEVANT SKILLS

Programming language
- Java, Python, C#, C++, Javascript, Typescript, R, Matlab

Front-end:
- HTML, CSS3, Javascript, TypeScript, Jquery, React JS, JWT, JSP

Back-end:
- Spring MVC, Spring Boot, Spring Security, Hibernate, Django, Fastapi, Asp.net MVC Core, Node.js (Express), Streamlit

Databases:
- Mysql, MSSQL, Oracle, PostgreSQL, Chroma

Data Analytics:
- Power BI

DevOps:
- Docker, AWS Kubernetes

Testing:
- JUNIT 4, Pytest

Source Control:
- SourceTree, Github, TortoiseSVN, Git, Bitbucket

Software:
- Visual Studio Code, Eclipse, Postman

OS:
- Windows, MAC, Linux

Cloud:
- AWS, Amplify, Lambda, Route 53, S3 SQS, Lambda

Methodologies:
- Agile/Scrum, Test Driven Development (TDD)

Software Architecture:
- Model View Controller, Domain Driven Design, N-tier architecture that features N-level undo capabilities
- RIA architecture(GUI components <-> Logic Service)

AI:
- Binary Classification Algorithms: Naive Bayes, Logistic Regression, K-Nearest Neighbours, Support Vector Machine, Decision Tree, Random Forest, Neural Network (Deep Learning)
- Unsupervised Machine Learning algorithms: K-means Clustering, PCA, CNN, SVMs, K-modes
- Dimensionality Reduction Algorithms: Linear methods (PCA,LDA), Non-Linear Methods(Kernel PCA)

- RAG
- Supervised Machine Learning models - RAG, Logistic/Linear Regression, Multiple linear regression (MLR), Decision Tree, Random Forest, Gradient boosting, XGBoost, Likelihood of model, Support Vector Machine
- AI web tools: Chatgpt, Seaart, Stable Diffusion, Langchain

PROFESSIONAL EXPERIENCE

AI and Data Analytics Full-Stack Software Engineer Adelaide, Australia
Part time (Remote) Mar 2024 – Present
Achievement:

- Focusing on sales management web application system, sales mobile web application, data reports with AI business analytics, and AI Chatbot for business.

Key Responsibilities:

- Front-End Development:
  - - Craft and apply UI components leveraging HTML5, CSS3, and JavaScript.
  - - Create web designs that adapt to various devices and screen sizes for an optimal viewing experience.
  - - Employ frameworks like React, Angular, jQuery, or Vue.js to build lively and interactive web experiences.
  - - Handle intricate application states with state management tools like Redux.
  - - Enhance web page performance for speed and scalability.
- Back-End Development:
  - - Construct and maintain RESTful APIs for serving both front-end interfaces and external systems.
  - - Use diverse programming environments such as Java (with Spring and Hibernate/JPA), Python (with Django or FastAPI), C# (.NET Core), and JavaScript (Node.js and Express.js) to build strong back-end functionalities.
  - - Operate and optimize databases like MSSQL, Oracle, MySQL, and SQLite through schema design, query optimization, and performance tuning.
  - - Secure applications through robust authentication and authorization practices.
  - - Manage and deploy to cloud infrastructures (AWS, Azure, GCP) and develop server maintenance tools with languages like Turbo C, C++, and shell scripting.
- Full-Stack Design and Development:
  - - Drive the full-stack development process, enhancing web applications to deliver exceptional user experiences, scalability, and performance, integrating MVC and DDD frameworks for efficient, business-aligned software solutions.
- Mobile Development:
  - - As a Mobile Application Developer, focus on creating accessible, secure, and engaging applications that reinforce the brand and encourage user interaction using technologies like React Native, PhoneGap, Xamarin.Forms, and Ionic.
- AI and Machine Learning:
  - - Architect and implement AI and machine learning solutions to analyze complex data sets, using a variety of techniques from binary classification and unsupervised learning algorithms to dimensionality reduction and advanced model training, while incorporating these innovations into web apps for enhanced intelligence and user interaction.
- Data Analytics and Management:
  - - Analyze and interpret large datasets to drive business strategy, utilizing advanced tools like Python and R for data manipulation, PowerBI, and Excel for visualization, and ensuring high-performance database management with a focus on ethical data practices and big data processing techniques.

Tools used: Java, **C#**, **Spring Boot, Spring Security, Hibernate, Python, Django, Fastapi, C#, Asp.net core, Typescript, Node Js, ExpressJs, ReactJs, JavaScript**, **VUE JS**, **Jquery**, **SQL**, **HTML**, **CSS**, **Bootstrap**, **MySQL**, **Oracle**, **MSSQL**

Professional Freelancer Adelaide, Australia
Freelancer Jan 2022 – Present

Achievement:

- Ordertable project: Developed a website(http://ordertable-aws.ap-southeast-2.elasticbeanstalk.com/) that allows customers to choose and reserve the number of tables at a tea house. This system needs to include a customer registration system as well as a customer management system. Each account will have its own permissions, and each type of permission allows access to different functional interfaces. For example, it can manage restaurant information as well as customer data. It also allows customers to vote or rating and recommend restaurants with good service.
- Wikipedia Searching Engine: This advanced Wikipedia Search Engine, a refined web tool, significantly elevates the standard Wikipedia search experience. Leveraging the Wikipedia API, it's crafted using HTML5, Javascript, Typescript, and Vue.js, presenting a user-friendly interface featuring a neat search box and results display. The design is responsive, adapting seamlessly across various devices.

Key Responsibilities:

- Combining **Java** with **Spring**, **Spring Security**, and **Hibernate** offers a powerful and cohesive ecosystem for building robust, secure, and efficient web applications.
- Using **Javascript**, **Juery**, and **Vue** JS for front-end development. Empowered by **Javascript**, **Jquery**, and **Vue**.js, the application excels in delivering reactive data updates. Key functionalities include instant search capabilities, preview snippets, and a customizable theme option with colors like White, Red, Deep Blue, and Deep Green. The asynchronous search mechanism ensures fluid navigation without disruptions, while comprehensive error handling guarantees consistent performance. This tool embodies the pinnacle of modern web development, distinguished by its intuitive interface, enhancing the ease and enjoyment of accessing Wikipedia's vast repository of knowledge.
- Designed the **MySQL** database and connected to **AWS RDS**
- Launch the website into **AWS EC2** by using **Elastic Beanstalk**.

Tools used: Java, **C#**, **Spring Boot, Spring Security, Hibernate JavaScript**, **VUE JS**, **Jquery**, **SQL**, **HTML**, **CSS**, **Bootstrap**, **MySQL**, **Oracle**, **MSSQL**

Youtube Adelaide, Australia
Youtuber Jan 2019 – Present

Achievement:

- I have created a series of English teaching videos on YouTube. The main content involves using English clips from Dragon Ball for editing. The videos display commonly used English vocabulary, which frequently appears in IELTS exams. Additionally, each English word is analyzed through a Worddecording method to assist in understanding, memorization, and retention. Learn English With Video (Word Decoding) - YouTube
- I have utilized newer AI technology to produce English teaching videos. I use **ChatGPT** and **CapCut** to create these videos, editing the English dialogue content generated by **ChatGPT** and the background video using CapCut software. I also incorporate comic backgrounds created with **ChatGPT** and **Seaart**. English Conversation & Stories - YouTube
- I have produced a series of educational videos focused on web development technologies. These tutorials cover a range of topics, including web development techniques using Java, Python, React JS, and Vue.js. Each video aims to provide comprehensive and professional insights into the respective technology. Web Programming Learning Channel - YouTube
- I have developed a **web-based system** capable of assembling over 10,000 words for English learning by combining prefixes, stems, and suffixes. This system provides explanations on the functions of the prefixes, stems, and suffixes used in each word. https://youtu.be/Vb08hhz7DiA

Key Responsibilities:

- I have developed a website using ASP.NET, specifically designed to showcase Dragon Ball English video content, which includes an analysis of English vocabulary with word decoding. And then record the video for making YouTube videos.
- I created a Java application specifically for an ASP.NET web application. Its purpose is to analyze and decode the subtitles of English videos, focusing on approximately 200,000 English words. Such a Java application will export a **JSON** after analyzing the subtitles. Then Asp.net web application will read such JSON and English videos.

Tools used: Youtube studio, **Java**, **Asp.net C#**, **JavaScript**, **Jquery**, **SQL**, **HTML**, **CSS**, **Bootstrap**, **ChatGPT**, **Seaart, CapCut**

Automated Systems (HK) Limited Hong Kong, China
Analyst Programmer May 2013 – May - 2016
Achievement:

- I successfully assisted my company in developing a **DH-PIDS web platform** (medication dispensing system for Hong Kong civil servant clinics). This system, used across all such clinics in Hong Kong, includes a stock management system and is utilized by frontline staff like nurses and doctors. It displays various medications needed for different ailments to the relevant personnel and prompts staff to reorder if certain medications are running low. Additionally, the system is capable of generating various analytical reports, analyzing patient histories, and predicting inventory consumption. It also provides medical staff with alternative options, suggesting similar efficacy medications when the usual drugs are in short supply.
- I successfully developed a **DH-Clinic Dispensing Window Mobile APP** (**Windows Mobile CE 5.5**) tailored for Hong Kong civil servant clinics. This app streamlines the process for clinic staff to dispense medications in accordance with doctors' prescriptions. It enables staff to use their mobile devices to accurately verify medication dosages, search for drugs in the warehouse, update drug information, and identify shortages or expiring drugs for replenishment through the system. Additionally, the application facilitates the pre-purchase of new medications via the system. It also organizes medications to be dispensed according to the patients' waiting number sequence, allowing staff to efficiently prepare the required drugs in the background for distribution. This mobile application significantly enhances the operational efficiency of medication management in clinics.
- I successfully assisted in developing a mobile application for the Hong Kong Police Force, designed for issuing traffic violation tickets to drivers. This application is available in two versions: one for Android and another for the **Hong Kong Police Force Mobile App** (**Windows Mobile CE 5.5**), with my responsibility being the Windows Mobile system. The primary aim of this development was to create a system that enables police officers to issue tickets to vehicles in violation of traffic laws while on duty. Both versions were made available to the officers, allowing them to choose the one that best fits their operational needs.
- Enhancements to the HKCSD Mobile App: We have integrated several new reporting functions specific to the Hong Kong Correctional Services Department. Additionally, a new search feature has been implemented, designed to facilitate families in easily obtaining information about the activities and status of their loved ones within the prison system.
- I successfully assisted ASL Company and the Home Affairs Department in restoring the HAD VRE Web-based Enquiry System (SRA) (web-based Hong Kong Voter Inquiry System). This system includes functionalities such as querying voter registration details. The features allow users to enter the Hong Kong Identity Card number or other identification document numbers as specified on the voter registration form, as well as their English or Chinese name listed on the form. Additionally, it incorporates a feature to answer a mathematical question for verification purposes. https://rrevoter.had.gov.hk/remis/RREenquireVoter.jsp?lang=en

Key Responsibilities:

- Engage in programming tasks using a diverse set of technologies and languages including **Java**, **Spring MVC**/**Boot**, **Hibernate**, **Asp.net**, **MSSQL** 2005, **Oracle**, **JQuery**, **JavaScript**, **HTML5**, **XML**, **CSS**, and JSON.
- Develop web-service functionalities using **Java** for **PDAs**, specifically targeting the **Windows Mobile** 6.5 platform using **C#**.
- Design, develop, and maintain Java web applications, focusing on cache servers operating on the Red Hat OS.
- Developed a PIDS-PDA application with **domain-driven design** (**DDD**) architecture to implement in the Hong Kong Department Of Health, the **PDA** is using a **Windows Mobile 6.5 platform**.
- **Android** / **Java** web applications design, development & maintenance.

Tools used: Java, **C#**, **JavaScript**, **Jquery**, **SQL**, **HTML**, **CSS**, **Bootstrap**, **MySQL**, **Oracle**, **MSSQL**

ICLP Hong Kong, China
Analyst Programmer Oct-2012 – Jan-2013
Achievement:

- I successfully assisted our client, Chow Tai Fook, in revising their Customer Relationship Management System. This system notably includes a feature for customer loyalty cards, offering various card types to different customers. For instance, some customers hold Platinum cards, others Silver cards and some have regular Membership cards. Each card type comes with its unique set of benefits and privileges. My role involved resolving errors and issues that arose within this system.

Key Responsibilities:

- Maintaining the CTF CRM system.
- Maintaining the E-Card reader system.

- Developed a new XML Financial report system for CHOW TAI FOOK, which has to cater to validation and maintain a list of finance rules with the standard implementation of rules.
- Web programming with **Asp.net**, **MSSQL** 2005/2008, **Jquery**, **Javascript**, **Ajax**. **JSON**, **CSS**.
- Developed a new JHC CRM survey system with independent work.

Tools used: Asp.net C#, **Javascript**, **Jquery**, **SQL**, **HTML**, **CSS**, **Bootstrap**, **XML**, **MySQL**, **MSSQL**

Classroom Hong Kong, China
Analyst Programmer June-2012 – Sep-2013
Achievement:

- I assisted a developer in creating an online mathematics homework system for primary school students, facilitating learning and assignment completion on a digital platform. This system allows teachers to remind or discuss relevant math problems and supports computerized homework evaluation. Additionally, it features capabilities such as using graphics to explain mathematical principles and generating various reports for teachers. These reports aid in analyzing student progress and identifying areas requiring focused practice, thereby enhancing the educational experience.

Key Responsibilities:

- Engaged in web development using technologies such as **Asp.net**, **MSSQL**, **JQuery**, **Javascript**, **Ajax**, and **JSON**.
- Independently designed and launched a new online Math homework platform.
- Developed a new online math homework system with independent work.

Tools used: Asp.net C#, **Javascript**, **Jquery**, **SQL**, **HTML**, **CSS**, **Bootstrap**, **MySQL**, **MSSQL**

Telelink (HR Company) Hong Kong, China
Analyst Programmer (On-Site at PCCW) Dec-2008 – June-2012
Achievement:

- I have effectively contributed to the development of several advanced systems for PCCW's call center, each designed to enhance various aspects of their operations.
- 3G Mobile Phone Retention System: This comprehensive system allows sales representatives to swiftly access and analyze customer information, including purchasing habits. Utilizing these insights, they can develop customized sales strategies and offer personalized promotions. The system also integrates a variety of business research tools and reporting features, along with several unexpected additional subsystems that augment its overall functionality.
- iPhone Quota System: My assistance in developing this system was instrumental in improving customer service and managing iPhone sales more efficiently. The system is designed to track and manage sales quotas, enabling a more streamlined and effective approach to iPhone sales.
- Free Gift/Premium Quota System: I played a key role in creating this sophisticated tool, aimed at boosting customer engagement, enhancing sales performance, and effectively managing the distribution of promotional items. This system is tailored to align promotional strategies with customer preferences and sales targets.
- Broadband Network Coverage Search Engine: I was involved in conceptualizing and developing a tool that provides detailed and accurate information about broadband network coverage and quality in various locations. This tool is essential for delivering precise broadband service information, helping both customers and call center agents make informed decisions.
- Each of these systems demonstrates my commitment to leveraging technology to improve customer experience, sales efficiency, and operational effectiveness in the telecommunications sector.

Key Responsibilities:

- Worked onsite at PCCW, focusing on the design interplay between business logic (covering validation and business rules) and the corresponding physical models.
- Developed a user control library that supports data binding, offering an abstract model tailored for **UI** developers.
- Implemented an N-tier architecture that features **N-level undo capabilities**.
- Spearheaded and managed large technical projects.
- Designed **FTP** tools for uploading and systems for email exports.
- Mastered the capability to implement validation, curate and adhere to business rules, and enforce these with established standards. Further integrated authorization rules at both object and property levels.
- Conducted web development using technologies such as **Asp.net**, **MSSQL**, **Oracle**, **JQuery**, **JavaScript**, **Ajax**, **HTML5**, **JSON**, and **XML**.

- Developed a web application/**RIA** with **Asp.net** C# for the department of PCCW 3G Mobile retention with independent work

Tools used: Asp.net C#, **Javascript**, **Jquery**, **SQL**, **HTML**, **CSS**, **Bootstrap**, **MySQL**, **MSSQL**

TIM EDPlatform Ltd Hong Kong, China
Programmer Mar-2007 – April-2008
Achievement:

- I contributed to the development of Library Master Lite, a complementary application to the proposed Library Master 2.0 concept. Library Master 2.0 is an advanced library service framework embracing Web 2.0 features, including online services like OPAC systems. Library Master Lite, in contrast, is a Windows application designed to operate offline, mirroring the capabilities of Library Master 2.0.
- This development offers significant benefits to library administrators and taxpayers by introducing more efficient service delivery methods, thereby ensuring higher returns on financial investments. This innovation marks the library's transition towards leveraging the internet to offer comprehensive digital library services.
- I played a key role in assisting my company with the maintenance and development of the myLearning Profile Platform. This platform enables the creation of Student Learning Profiles (SLP), which are comprehensive summaries showcasing students' participation and achievements in whole-person development during their senior secondary years. The SLP is designed to highlight and acknowledge the all-around development of students while encouraging them to reflect on their experiences and set future goals. My contribution involved developing functional modules that allow students to construct their SLP. Schools have the autonomy to design and implement their SLPs, with the option to utilize the module of WebSAMS and its templates provided by our TIM EDPlatform Ltd.

Key Responsibilities:

- Independently developed web applications using **Asp.net**.
- Engaged in web application development using PHP3, working both independently and collaboratively with teams.
- Managed Windows server and client projects with autonomy.
- Programmed web services and web user controls.
- Remotely accessed client Linux OS for web application maintenance.
- Utilized a range of technologies for web programming, including **Asp.net**, **MSSQL**, **PHP3** (integrated with our company's framework), **MYSQL**, **Javascript**, and **Ajax**.
- Developed C# window application with server-client side design for the library system.

Tools used: Asp.net C#, **PHP3**, **Javascript**, **Jquery**, **SQL**, **HTML**, **CSS**, **MSSQL**

Bechelon Consulting Hong Kong, China
Junior Web Designer Oct-2005 – Nov-2006
Achievement:

- Web template design for the prototype.
- Designing logo and web image (eg. button image, banner)

Key Responsibilities:

- Designed UI interfaces for web and web applications.
- Collaboratively developed web applications using **Asp.net** and **MSSQL**.
- Engaged in web programming using **PHP3**, **MYSQL**, and **Javascript**.

Tools used: Asp.net C#, **PHP3**, **Javascript**, **SQL**, **HTML**, **CSS**, **MYSQL**, **MSSQL**

PROJECT EXPERIENCE

Portfolio Project (Personal Project): Jan 2022 – Present
Achievement:

- I successfully developed and launched a professional portfolio (https://main.dvnq4p5zmaq26.amplifyapp.com/) using **Javascript**, **React JS, HTML5, CSS, Google Fonts, Bootstrap**, and deployed it on **AWS Amplify**. This portfolio comprehensively presents my professional journey and showcases my technical and soft skills. It includes my personal information, a professional photograph, and a compelling bio that encapsulates my career background, skills, and goals. The portfolio features an up-to-date resume, detailing my educational background, work experience, skills, and notable certifications and awards.

- Significantly, it displays a curated selection of work samples - projects, reports, designs, code snippets, and writing samples - each accompanied by a description, my role, skills applied, and project impact. It also contains detailed case studies that highlight my problem-solving abilities and project management skills. The portfolio lists my key technical and soft skills, professional development activities, and any awards and recognitions I've received. Designed for easy navigation and accessibility, it reflects my personal brand and is optimized for online and mobile-friendly viewing, ensuring that my contact information is readily available to potential employers or collaborators.

Key Responsibilities:

- Development and Deployment: Spearheaded the development and deployment of a professional portfolio using **React JS**, and its subsequent deployment on **AWS Amplify**.
- Content Management: Managed comprehensive content showcasing my professional journey, encompassing personal details, career background, skills, and objectives.
- Resume and Work Samples Curation: Maintained an updated resume and curated a diverse range of work samples, including projects, reports, designs, code snippets, and writing samples, each with detailed descriptions and impact analysis.
- Case Study Development: Created in-depth case studies to demonstrate problem-solving and project management capabilities.
- Skill and Achievement Documentation: Documented key technical and soft skills, professional development activities, and recognitions received.
- Portfolio Design and Accessibility: Ensured the portfolio's design was user-friendly, navigable, and accessible on various devices, reflecting my personal brand.
- Technical Implementation with **react-table**: Utilized react-table for creating interactive data grids and tables, demonstrating skills in UI component customization, data handling, and enhancing user experience in web applications.

Tools used: AWS Amplify, Javascript, **React JS, HTML5, CSS, Google Fonts, Bootstrap, React-Table**

Ordertable Project (Freelancer Project): Jan 2022 – Present

Achievement:

- This website shows a **Java** web solution for many websites (http://ordertable-aws.ap-southeast-2.elasticbeanstalk.com/) is to provide different web pages for different devices, such as a mobile version or an iPhone/iPad version. This ensures the effect, but it is cumbersome, and several versions are maintained, and if a website has multiple **portals**, it will greatly increase the complexity of the architecture design.

Key Responsibilities:

- Comprehensive and Extensible Security: Using Spring Security to provide a robust authentication and authorization system. It can be easily extended to meet custom security requirements, making it suitable for a wide range of applications, from simple to highly complex security demands.
- Method Level Security: Beyond securing web requests, using Spring Security to secure method invocations using annotations. This granularity allows for fine-tuned control over who can execute specific methods within your application.
- Customizable Authentication and Authorization: Using **Spring Security** to support a wide range of authentication mechanisms, including form-based authentication. Authorization can be as simple or complex as needed, supporting role-based access control and more sophisticated access control policies.
- Protection Against Common Vulnerabilities: Using **Sprint Security** provides built-in protections against common security vulnerabilities like **CSRF** (Cross-Site Request Forgery), session fixation, and clickjacking. This ensures that applications are secure against a wide array of attack vectors.
- Session Management: using Spring Security to provide advanced session management controls, allowing for customization of session creation, expiration, and concurrency strategies.
- Combining **Java** with **Spring**, **Spring Security**, and **Hibernate** offers a powerful and cohesive ecosystem for building robust, secure, and efficient web applications.
- Designed the Ordertable **MySQL** database.
- Additionally, I am responsible for several aspects of this website, including the design of the website's appearance and layout, as well as the design of the member login system and the system for modifications. This includes various permissions. For example, if you are an administrator, I will also create an administrator interface, allowing administrators to add or modify members, along with other functionalities. The system itself is a service for reserving resturant tables, so it will have a section allowing people to check the availability of tables at each resturant. Furthermore, the system also includes a rating system, which allows users to appreciate certain resturant, increasing their popularity. This way, you can help them achieve higher scores.

- Consequently, I have decided that I can be designed once, universally applicable, so that the same web page automatically adapts to different screen sizes, automatically adjust the layout according to the width of the screen by using the HTML **Responsive Web Design**. The **CSS** can refer to a web design that automatically recognizes the width of the screen and adjusts accordingly. If the screen width is greater than 768 pixels, then 4 buttons in the menu are lined up side by side. If the screen width is lower than 768 then the menu button in the right-hand corner will be showing for dropping down a menu list.

Tools used: Java, Spring Boot, Hibernate, Mysql, Jquery, Javascript, CSS, HTML, Bootstrap

Wikipedia Searching Engine(Freelancer Project): Jan 2022 – Feb - 2022

Achievement:

- The Wikipedia Searching Engine, a sleek web application, enhances Wikipedia searches through its integration with the **Wikipedia API**, offering a more efficient alternative to standard searches. Developed with **HTML5, Javascript, Typescript,** and **Vue**.js, it features a simple yet elegant interface with a search box and results display. Its responsive design ensures a seamless experience on various devices.

Key Responsibilities:

- The application, powered by **Vue**, supports reactive data updates and includes features like instant search, snippet previews, and a dynamic theme toggle (White, Red, Deep Blue, Deep Green) for user personalization. Its asynchronous search function ensures smooth, uninterrupted browsing, and robust error handling maintains stability. This user-friendly tool, epitomizing modern web development, stands out for its intuitive design, offering a streamlined, enjoyable way to access Wikipedia's extensive information.

Tools used: Vue JS, Javascript, CSS, HTML

DH-PIDS Web-Platform May 2013 – May - 2016

Achievements:

- I played a pivotal role in assisting my company in developing the DH-PIDS web platform, a sophisticated medication dispensing system for Hong Kong civil servant clinics. Implemented across numerous clinics, this system incorporates an efficient stock management module, vital for frontline medical personnel such as nurses and doctors. It effectively displays the required medications for diverse health conditions, alerting staff to replenish stocks as needed. The system is adept at generating comprehensive analytical reports, offering insights into patient histories, and forecasting inventory needs. Crucially, it supports medical staff by suggesting alternative medications with comparable efficacy, especially beneficial when standard drugs are scarce. This innovation significantly streamlines clinic operations and enhances patient care.
- Advanced Stock Management: The system can include a robust stock management module, crucial for tracking and managing medication inventory across multiple healthcare facilities, ensuring efficient stock rotation and reducing wastage.
- Medication Dispensing and Labeling: It can facilitate accurate dispensing of medications, supported by features like handheld labels and integration with Zebra printers for efficient medication labeling, enhancing the safety and accuracy of medication administration.
- Real-Time Medication Information Display: The platform can display necessary medications for a wide range of health conditions, making it easier for medical staff to identify and administer the correct drugs.
- Automated Replenishment Notifications: Automated alerts can notify staff when medication levels are low, ensuring that essential drugs are always in stock.
- Comprehensive Analytical Reporting: The system can generate detailed Ph1 & Ph2 reports, providing insights into patient medication histories, usage patterns, and inventory forecasts, aiding in strategic decision-making.
- Alternative Medication Suggestions: In scenarios where certain drugs are unavailable, the system can suggest alternative medications with similar efficacy, ensuring continuity of care.
- System Maintenance and Enhancements: Regular updates, including bug fixes in dispensing modules and improvements to functionalities like the Ocean Fax feature, can keep the system running smoothly.
- Financial and Inventory Management Integration: Integration with the Government Financial Management Information System (GFMIS) for effective financial and inventory management.
- Load Testing for Reliability: Conducting load tests to ensure the system's reliability and efficiency, is particularly important in high-demand healthcare environments.
- User-Friendly Interface: Designed for ease of use by healthcare professionals, the platform can have an intuitive interface that simplifies medication management processes.

- CIMS-PIDS Maintenance: Continuous maintenance and enhancement jobs to ensure the system adapts to evolving healthcare needs.

Key Responsibilities:

- In my role with the Hong Kong Department of Health, I contributed significantly to the development of the DH-PIDS web platform, a key system in enhancing medication management efficiency, patient safety, and the smooth functioning of health services.
- My work included developing a comprehensive stock take/movement feature and creating labels for handheld devices.
- I also developed the Zebra function for handheld-related tasks, fixed critical bugs in the dispensing module, and addressed issues in the Ocean Fax function.
- Additionally, I was responsible for developing Phase 1 and Phase 2 reports for the DH-PIDS Web Platform, handling CIMS-PIDS maintenance and enhancement jobs, and creating the Government Financial Management Information System (GFMIS) (Part 2: Download Module). Furthermore, I conducted load testing for the DH-PIDS system to ensure its robust performance and reliability.

Tools used: Java, Spring, Hibernate, Oracle, Mysql, Jquery, Javascript, CSS, HTML

DH-Clinic Dispensing Window Mobile APP (Window Mobile CE 5.5) May 2013 – May - 2016

Achievements:

- Medication Dispensing Accuracy: The app allows clinic staff to dispense medications precisely in line with doctors' prescriptions. This includes verifying medication types, dosages, and quantities.
- Inventory Management: Staff can use the app to search for medications in the clinic's warehouse, facilitating quick access and retrieval of drugs. It can also enable updating of drug information in real-time.
- Stock Shortage and Expiry Alerts: The app can identify and alert staff about drugs that are running low or nearing their expiration date, ensuring timely replenishment and reducing waste.
- Pre-Purchase of Medications: The application provides a feature for the pre-purchase of new medications, streamlining the procurement process and ensuring a continuous supply.
- Patient Queue Management: Medications can be organized in the app according to the sequence of patients' waiting numbers. This feature aids staff in preparing medications in advance, based on the order of patient appointments.
- User-Friendly Interface: Considering the diverse tech-savviness of clinic staff, the app can have a simple, intuitive interface, making it easy to navigate and use.
- Data Synchronization: The application synchronizes data with the clinic’s central system, ensuring all information is up-to-date and consistent across platforms.
- Security and Confidentiality: The app can be designed with strong security measures to protect sensitive patient data and comply with healthcare regulations.
- Reporting Features: The ability to generate reports on medication dispensing, stock levels, and patient interactions can be integrated, providing valuable insights for clinic management.
- Offline Functionality: Understanding that internet connectivity can be inconsistent, the app can have offline capabilities, allowing staff to continue their work even without a stable connection.

Key Responsibilities:

- Developed **Java Webservice** for DH-Clinic Dispensing Window Mobile APP to sync the data between **DH-PIDS Web-Platform and** APP.
- Developed DH-Clinic Dispensing Window Mobile APP (PDA Phase 1), DH-PM Inventory Window Mobile Developed Multi-PDA Server (Connecting multiple PDA to the server using network programming) by using **Windows Form** and **Winsock.**

Tools used: C#. Window Mobile CE5.5, SQL, Java, Spring, Java Webservice, Winsock, Windows Form

Hong Kong Police Force Mobile App (Window Mobile CE 5.5) May 2015 – May - 2016

Achievements:

- I played a crucial role in developing a mobile application for the Hong Kong Police Force, specifically designed to facilitate the issuance of traffic violation tickets. This application was developed in two versions: one for Android devices and another for the Hong Kong Police Force Mobile App on Windows Mobile CE 5.5, with my focus being on the Windows Mobile platform. The primary objective of this project was to provide police officers with a user-friendly system to efficiently issue tickets for traffic law violations while on duty. Both versions of the app were made accessible to officers, offering them the flexibility to select the version that best suits their operational requirements.

Key Responsibilities:

- Developed creating, deleting, selecting, management driving tickets.
- Developed Zebra Label printing for Handheld.

Tools used: C#. Window Mobile CE5.5, SQL

HAD VRE Web-based Enquiry System (SRA) May 2015 – May - 2016

Achievements:

- Voter Registration Detail Query: The primary function of the system can be to allow users to query their voter registration details. This can include checking their current registration status, polling station details, and any other relevant voter information.
- Identity Verification: Users can be able to enter their Hong Kong Identity Card number or other identification document numbers as specified on their voter registration form. This ensures that access to voter information is secure and specific to the individual.
- Name-Based Searches: The system can allow searches using the English or Chinese name as listed on the voter registration form, offering flexibility and ease of use for a diverse population.
- Mathematical Verification Question: To enhance security and prevent automated queries, the system can incorporate a feature where users need to answer a simple mathematical question. This step helps to verify that the query is being made by a human user.
- User-Friendly Interface: The web-based system can have an intuitive and easy-to-navigate interface, making it accessible for all users, regardless of their technical proficiency.
- Real-Time Updates: The system can provide real-time information, ensuring that users have access to the most current data regarding their voter registration status.
- Help and Support Features: To assist users, the system might include a help section or a FAQ, offering guidance on common queries and troubleshooting.
- Privacy and Data Protection: Adhering to data protection laws and privacy concerns, the system can have robust security measures to protect personal information.

Key Responsibilities:

- Fixed bugs

Tools used: Java, Spring, Hibernate, Oracle, Mysql, Jquery, Javascript, CSS, HTML

HKCSD Mobile App Enhancement jobs May 2015 – May - 2016

Achievements:

- Inmate Search and Information: A key feature can be the ability for families to search for and obtain information about their loved ones in the prison system. This can include details like the inmate's location, status, and scheduled activities.
- Enhanced Reporting Functions: The app can integrate new reporting functions specific to the Correctional Services Department’s needs. This might include incident reports, daily activity logs, and other relevant operational data.
- Family Communication Portal: There can be a secure communication channel within the app for families to send messages or schedule visits with inmates, subject to departmental guidelines and regulations.
- Notifications and Alerts: The app might provide notifications to families about any significant changes in the inmate’s status, upcoming events, or changes in visitation policies.
- Prison Facility Information: Detailed information about various prison facilities, including location, visiting hours, and contact details, can be accessible through the app.
- Educational and Rehabilitation Program Details: Information about various educational and rehabilitation programs available to inmates can be provided, helping families stay informed about the opportunities for their loved ones.
- Safety and Security Guidelines: The app can include guidelines and protocols for visitors, ensuring they are aware of security procedures and regulations before visiting the prison.
- Multilingual Support: Given Hong Kong's linguistic diversity, the app can likely offer support in multiple languages, including English and Chinese.
- User-Friendly Interface: An intuitive and easy-to-navigate interface can be crucial to ensure that the app is accessible to a broad user base, including those with limited tech proficiency.
- Privacy Protection: Ensuring the confidentiality and privacy of sensitive information can be a top priority, with robust security measures in place to protect user data.
- Feedback and Support: The app can include a feedback mechanism for users to report issues or make suggestions, as well as a support section for FAQs and troubleshooting.

Key Responsibilities:

- I significantly upgraded the "HKCSD Mobile App," transforming it into an essential resource for the Hong Kong Correctional Services Department. This enhanced app improves communication and transparency between the department and inmates' families, and it streamlines various departmental

processes. The app now includes several specialized features specifically designed to meet the unique requirements of the department and the needs of inmates' families. These enhancements are pivotal in facilitating a more efficient and responsive correctional service system.
- Added several new HKCSD report functions.
- Added a new search feature that makes it easy for families to find out what their loved ones are doing inside the prison.

Tools used: Java, Android, Android Studio, Genymotion Emulator

BAO-ASC May 2013 – Aug - 2013

Achievements:
- Objective: The primary aim of the BAO-ASC project is to develop and implement a sophisticated IT solution focused on generating comprehensive reports pertinent to support and care services for the elderly in Hong Kong. This initiative is designed to streamline and enhance the management of data related to various elderly support programs and outreach activities.
- Scope and Focus: At the core of BAO-ASC is our commitment to serving the aging population of Hong Kong. The project is tailored to address the specific needs of this demographic by providing insightful and actionable reports that aid in the efficient administration and continual improvement of elderly care services. The 'Beneficial Aid and Outreach' component of the project encompasses a wide array of services and resources, aiming to offer a holistic approach to elder care. This includes but is not limited to, health care management, social engagement programs, and accessibility services.

Key Responsibilities:
- Target Outcomes: Through the effective use of data analytics and reporting tools, BAO-ASC seeks to empower caregivers, healthcare providers, and policy-makers with relevant and up-to-date information. This will facilitate informed decision-making, enhance the quality of care, and ensure the sustainability of support systems for the elderly. Additionally, the project aims to identify trends and patterns within the care system, enabling continuous improvement and adaptation to the evolving needs of Hong Kong's aging population.
- Technological Approach: The project leverages cutting-edge IT infrastructure and software solutions to accurately gather, process, and present data. Emphasis is placed on user-friendly interfaces for ease of use by non-technical staff while ensuring robust data security and privacy compliance in line with Hong Kong's regulatory standards.
- Maintenance Job: Fixed bugs

Tools used: Borland Delphi, SQL, Application Framework (Developed by ASL)

CTF CRM system Oct 2012 – Jan - 2013

Achievements:
- I effectively contributed to the enhancement of our client, Chow Tai Fook's Customer Relationship Management System.

Key Responsibilities:
- Maintaining the CTF CRM system.

Tools used: C#, Asp.net, MSSQL, Jquery, Javascript, CSS, HTML, SQL

E-card reader system Oct 2012 – Jan - 2013

Achievements:
- A particular focus on the customer loyalty card functionality. This system offers diverse card types tailored to distinct customer segments, such as Platinum, Silver, and regular Membership cards. Each card category is associated with its exclusive array of advantages and privileges. My responsibilities encompassed addressing and rectifying errors and challenges encountered within this system.

Key Responsibilities:
- Maintaining the E-card reader system.

Tools used: C#, Asp.net, MSSQL, Jquery, Javascript, CSS, HTML, SQL

XML Financial report system for CHOW TAI FOOK Oct 2012 – Jan - 2013

Achievements:
- Creating function for generating financial report.

Key Responsibilities:
- Maintaining the XML Financial report system for CHOW TAI FOOK

Tools used: C#, Asp.net, MSSQL, Jquery, Javascript, CSS, HTML, SQL

JHC CRM survey system Oct 2012 – Jan - 2013

Achievements:
- Creating JHC CRM survey system for Japan Hotel

- Guest Profiling and Personalization: Utilizing historical data, guest preferences, and feedback to tailor experiences from room selection to dining.
- Automated Feedback Collection: Post-stay, guests receive customized surveys through email inquiring about specific utilized services.
- Real-Time Feedback Processing: Feedback is processed instantly, enabling staff to swiftly address issues or acknowledge exceptional service.

Key Responsibilities:

- A particular focus on SQL function and front-end survey form development.

Tools used: C#, Asp.net, MSSQL, Jquery, Javascript, CSS, HTML, SQL

Online Math Homework Platform June 2012 – Sep- 2012

- Independently designed and launched a new online Math homework platform.

Tools used: C#, Asp.net, MSSQL, Jquery, Javascript, CSS, HTML, SQL

PCCW 3G Mobile Retention Order System Dec 2008 – June- 2012

Achievements:

- I was responsible for developing the PCCW 3G mobile retention order system which support PCCW consumer group call centers's work. Such a system is used to be a multifaceted tool designed to enhance customer retention and optimize sales processes.
- Customer Data Analytics: The system can provide sales representatives with instant access to detailed customer profiles, including their purchasing history, preferences, and service usage patterns. This data enables the creation of targeted strategies to retain customers, especially those considering switching to other providers or technologies.
- Personalized Marketing and Promotions: Leveraging customer data, the system can generate personalized promotional offers or discounts tailored to individual customer needs and preferences, encouraging them to renew or upgrade their 3G services.
- Automated Renewal Notifications: The system can automatically identify customers approaching the end of their contracts and trigger personalized renewal reminders, along with attractive offers to encourage them to stay.
- Business Research Tools: Integrating various market and business research tools, the system can provide insights into current market trends, competitor strategies, and emerging customer needs, helping to shape effective retention strategies.
- Customized Reporting Features: Sales representatives and managers can access customized reports, offering insights into retention rates, customer feedback, and the effectiveness of different retention strategies.
- Feedback and Survey Integration: The system might include mechanisms to collect and analyze customer feedback, using this information to improve service quality and address common concerns or issues.
- Cross-Selling and Upselling Opportunities: Based on customer data analysis, the system can identify opportunities for cross-selling and upselling, suggesting relevant additional services or upgrades that might appeal to each customer.
- Training and Support Modules: To ensure the effective use of the system, it can include training modules for sales representatives, providing them with the necessary skills and knowledge to use data-driven strategies effectively.
- Retention Trend Analysis: Advanced analytics can identify patterns and trends in customer behavior, predicting which customers are at risk of leaving and enabling proactive measures to retain them.
- User-Friendly Interface: The system can feature an intuitive, user-friendly interface, ensuring that sales representatives can easily navigate and utilize its various features.
- Compliance and Security: Ensuring data privacy and compliance with relevant regulations can be a key aspect, especially considering the sensitive nature of customer data.

Key Responsibilities:

- Worked onsite at PCCW, focusing on the design interplay between business logic (covering validation and business rules) and the corresponding physical models.
- Developed a user control library that supports data binding, offering an abstract model tailored for **UI** developers.
- Implemented an N-tier architecture that features **N-level undo capabilities**.
- Spearheaded and managed large technical projects.
- Designed **FTP** tools for uploading and systems for email exports.
- Mastered the capability to implement validation, curate and adhere to business rules, and enforce

these with established standards. Further integrated authorization rules at both object and property levels.
- Conducted web development using technologies such as **Asp.net**, **MSSQL**, **Oracle**, **JQuery**, **JavaScript**, **Ajax**, **HTML5**, **JSON**, and **XML**.
- Developed a web application/**RIA** with **Asp.net** C# for the department of PCCW 3G Mobile retention with independent work

Tools used: C#, Asp.net, MSSQL, Jquery, Javascript, CSS, HTML, SQL

iPhone Quota System Dec 2008 – June- 2012

Achievements:

- Sales Quota Tracking and Management: The system can track each sales representative's performance in real-time against their individual quotas for selling iPhones. This can include data on the number of units sold, revenue generated, and progress towards targets. Sales managers can use this information to identify top performers, provide support where needed, and make informed decisions about resource allocation.
- Customer Segmentation and Targeting: By analyzing customer data, the system can identify potential buyers for iPhones based on their purchasing history, preferences, and behaviors. Sales representatives can receive recommendations on which customers to target, along with personalized sales strategies and offers.
- Inventory Management: The system can integrate with the inventory database to provide real-time information on iPhone stock levels, models, and colors available. This can enable sales reps to inform customers accurately about product availability and expected delivery times.
- Dynamic Pricing and Offers: Based on supply and demand, the system might adjust pricing or offer special promotions on certain iPhone models. For instance, if a particular model is overstocked, the system can automatically offer discounts to accelerate sales.
- Customer Relationship Management (CRM) Integration: By integrating with a CRM system, the iPhone Quota System can provide sales reps with comprehensive customer profiles, including past interactions, preferences, and feedback. This can enable more personalized and effective sales conversations.
- Automated Alerts and Notifications: The system can send automated alerts to sales reps about customers who might be due for an upgrade based on their previous purchase history or contract expiration dates.
- Performance Analytics and Reporting: Providing detailed analytics on sales trends, customer feedback, and market conditions, the system can help the call center optimize its sales strategies and improve overall performance.
- Training and Support: The system can include training modules and support tools to help new sales reps learn about the various iPhone models, features, and selling points.
- Customer Feedback Collection: Post-sale, the system can automate the collection of customer feedback, helping to gauge satisfaction and gather insights for future improvements in service and product offerings.
- Compliance and Security: Ensuring that all transactions and customer data are handled in compliance with relevant laws and regulations, particularly around data privacy and consumer protection.

Key Responsibilities:

- At PCCW, I spearheaded the integration of advanced technologies in mobile call centers, focusing on data-driven sales, personalized service, and resource efficiency.
- My role involved harmonizing business logic with physical models and developing a **data-binding user control library** for UI developers.
- I implemented a sophisticated **N-tier architecture** with **N-level undo capabilities** and led major technical projects, including the creation of **FTP** and **email export systems**. My expertise extends to web development with Asp.net, MSSQL, and other technologies, culminating in the development of a web application for the iPhone Quota System using **Asp.net C#** and **NHibernate**.

Tools used: C#, Asp.net, NHibernate, MSSQL, Jquery, Javascript, CSS, HTML, SQL

Free Gift / Premium Quota System Dec 2008 – June- 2012

Achievements:

- Sales Quota Tracking and Management: The system can track each sales representative's performance in real-time against their individual quotas for selling iPhones. This includes data on the number of units sold, revenue generated, and progress towards targets. Sales managers can use this information to identify top performers, provide support where needed, and make informed decisions about resource allocation.

- Customer Segmentation and Targeting: By analyzing customer data, the system identifies potential buyers for iPhones based on their purchasing history, preferences, and behaviors. Sales representatives can receive recommendations on which customers to target, along with personalized sales strategies and offers.
- Inventory Management: The system can integrate with the inventory database to provide real-time information on iPhone stock levels, models, and colors available. This enables sales reps to inform customers accurately about product availability and expected delivery times.
- Dynamic Pricing and Offers: Based on supply and demand, the system can adjust pricing or offer special promotions on certain iPhone models. For instance, if a particular model is overstocked, the system can automatically offer discounts to accelerate sales.
- Customer Relationship Management (CRM) Integration: By integrating with a CRM system, the iPhone Quota System can provide sales reps with comprehensive customer profiles, including past interactions, preferences, and feedback. This can enable more personalized and effective sales conversations.
- Automated Alerts and Notifications: The system can send automated alerts to sales reps about customers who might be due for an upgrade based on their previous purchase history or contract expiration dates.
- Performance Analytics and Reporting: Providing detailed analytics on sales trends, customer feedback, and market conditions, the system can help the call center optimize its sales strategies and improve overall performance.
- Training and Support: The system can include training modules and support tools to help new sales reps learn about the various iPhone models, features, and selling points.
- Customer Feedback Collection: Post-sale, the system can automate the collection of customer feedback, helping to gauge satisfaction and gather insights for future improvements in service and product offerings.
- Compliance and Security: Ensuring that all transactions and customer data are handled in compliance with relevant laws and regulations, particularly around data privacy and consumer protection.

Key Responsibilities:

- At PCCW, my goal is to enhance the efficacy of promotional item utilization, aiming to boost sales while also elevating customer satisfaction and loyalty.
- I employ a data-driven methodology for distributing gifts, ensuring the efficient and effective use of promotional resources.
- My efforts also encompass the integration of cutting-edge technologies in mobile call centers, with a focus on data-driven sales strategies, personalized customer service, and resource optimization. My responsibilities include aligning business logic with physical models and creating a data-binding user control library geared towards UI developers.
- I have successfully implemented an advanced N-tier architecture with comprehensive undo capabilities. Leading significant technical projects, I have developed systems for FTP and email exports. My proficiency in web development, using tools like Asp.net, MSSQL, and similar technologies, has culminated in the creation of a web application for the iPhone Quota System, utilizing Asp.net C# and NHibernate.

Tools used: C#, Asp.net, NHibernate, MSSQL, Jquery, Javascript, CSS, HTML, SQL

Searching engine of Broadband network coverage Dec 2008 – June- 2012

Achievements:

- The proposed search engine features an interactive, real-time coverage map, displaying detailed broadband network coverage across various regions. Users have the capability to zoom in for granular coverage specifics, including network types like 3G, and assess signal strength at the street level.
- The system allows for address-based searches, enabling customers or call center agents to input specific addresses or postal codes for comprehensive coverage information in those areas. This includes details on network speeds, connection types (such as fiber, cable, DSL), and any potential service disruptions.
- Additionally, the system provides data on network quality and average download/upload speeds, aiding customers in understanding the service quality they can expect. A service availability checker is integrated, swiftly confirming service options, plans, and packages available at a customer's location.
- Customer feedback is seamlessly integrated into the system, providing valuable insights into the user experience with broadband services in various areas, thus enriching the technical data with qualitative user reviews.
- The tool also offers historical data analysis, showcasing network performance trends, coverage expansion, improvements, or recurring issues in specific regions. Users have the ability to compare

network coverage and quality across different locations or service providers, which is particularly beneficial for decision-making among residential and business customers.
- The system is directly integrated with the customer support structure of the call center, allowing agents to access this information promptly during customer interactions and offer precise, useful guidance on network coverage queries.
- Notifications and alerts about planned network upgrades or maintenance in particular areas are part of the system's features, keeping both customers and call center agents well-informed about potential service changes or interruptions.
- Designed for a diverse customer base, the search engine supports multiple languages and boasts a user-friendly interface. It is compatible with various devices, including smartphones, tablets, and desktop computers, ensuring convenient access for both call center agents and customers, regardless of their location.

Key Responsibilities:

- At PCCW, I was instrumental in developing a "Search Engine for Broadband Network Coverage" a crucial tool in mobile call centers that significantly enhances customer service. This innovative system offers detailed and accurate information about broadband service availability, aiding customers in making well-informed decisions about their internet options.
- My contributions at PCCW also involved leading the integration of advanced technologies to optimize **data-driven** sales, personalize customer service, and **streamline resource management**. I successfully harmonized business logic with physical models and crafted a data-binding user control library tailored for UI developers. Implementing a sophisticated **N-tier architecture with multi-level undo capabilities**, I managed major technical initiatives, including the design of **FTP** and **email export systems**. My technical proficiency spans various aspects of web development, utilizing Asp.net, MSSQL, and other cutting-edge technologies. This expertise culminated in the creation of a web application for the Search Engine for Broadband Network Coverage, employing **Asp.net** C# and NHibernate.

Tools used: C#, Asp.net, NHibernate, MSSQL, Jquery, Javascript, CSS, HTML, SQL

Online Mathematics Homework System

Achievements:

- I developed an "Online Mathematics Homework System," a robust tool blending technological innovation with educational best practices, aimed at enhancing learning outcomes and student engagement in primary school mathematics.
- My involvement included web development, utilizing technologies like Asp.net, MSSQL, JQuery, JavaScript, Ajax, and JSON. I independently designed and launched this new online math homework platform, crafting a system that significantly improves the way students interact with and learn mathematics online.

Key Responsibilities: Mar 2007 – Mar- 2008

- Creation of Interactive Assignments: Empowering teachers to craft and distribute engaging online math homework, encompassing a variety of question types such as multiple choice, fill-in-the-blank, and problem-solving exercises.
- Provision of Real-Time Feedback: Offering immediate, constructive feedback and hints on student responses during assignments to enhance the learning process.
- Utilization of Graphic Explanations: Employing visual aids, including graphs, diagrams, and animated videos, to demystify complex mathematical concepts for young learners.
- Monitoring Progress and Reporting: Providing teachers with comprehensive reports detailing each student's progress, pinpointing strengths and weaknesses, and tracking performance trends in different mathematical areas.
- Customization of Difficulty Levels: Tailoring assignments to suit individual student skill levels, balancing challenge with achievability to encourage a positive learning experience.
- Facilitating Discussion Forums: Incorporating a platform for teachers and students to engage in discussions, exchange solutions, and collaborate on complex problems.
- Automating Grading and Evaluation: Streamlining the assessment process with automated grading, delivering summarized results to both students and teachers.
- Integrating with Learning Management Systems: Ensuring seamless compatibility with existing school LMS for easy access to assignments, grades, and resources.
- Providing Parental Access: Enabling parents to monitor their child's homework, progress, and receive updates on assignments and deadlines.
- Designing for Accessibility: Crafting a user-friendly interface accessible across various devices, including tablets and computers, to support diverse learning settings.

- Offering Offline Capabilities: Addressing varying internet access by allowing assignment downloads for offline work, with synchronization options once online.

Tools used: C#, Asp.net, MSSQL, Jquery, Javascript, CSS, HTML, SQL

Library Master Lite system Mar 2007 – Mar- 2008

Achievements:

- Offline Database Management: Enables the management of library catalogs without the need for an internet connection. This includes adding, editing, and organizing book and resource information.
- User Account Management: Allows for the creation and management of user accounts, including students and staff, facilitating check-in and check-out processes, and tracking borrowing history.
- Barcode Integration: Supports barcode scanning for efficient book tracking and inventory management, streamlining the check-out and return processes.
- Search Functionality: Offers robust search capabilities within the offline database, enabling users to find books and resources by title, author, subject, or other metadata.
- Inventory Control: Helps in maintaining an accurate count of books and resources, alerting staff to low-stock items or lost materials.
- Reporting Tools: Generates reports on various aspects such as book circulation, overdue items, and user activity, assisting in library management and decision-making.
- Reservation and Renewal System: Allows users to reserve books and renew check-outs directly through the system, enhancing user convenience.
- Data Sync Capability: When internet access is available, it can synchronize data with the main Library Master 2.0 system, ensuring consistency and up-to-date information.
- Access Control: Implements various user access levels, ensuring that sensitive information and administrative functions are protected and accessible only to authorized personnel.

Key Responsibilities:

- I developed a C# Windows application featuring a server-client architecture for a school library system. This application, Library Master Lite, is specifically designed to complement the advanced Library Master 2.0, which utilizes Web 2.0 capabilities and online services like OPAC (Online Public Access Catalog). Unlike its counterpart, Library Master Lite is optimized for offline use, making it an ideal solution in settings with limited or intermittent internet access. This application significantly enhances the library experience in such environments by offering a comprehensive range of functionalities, ensuring sustained high-quality user engagement and efficient library management, even without constant internet connectivity.

Tools used: C#, MSSQL, Winsock, Windows Form

TIM-ED Platform system Mar 2007 – Mar- 2008

Achievements:

- Successfully facilitated the enhancement and support of the myLearning Profile Platform at my company, playing a pivotal role in the platform's development. This innovative platform is instrumental in generating Student Learning Profiles (SLP), which are detailed records capturing students' holistic development and accomplishments throughout their senior secondary education. My key contribution involved designing and implementing functional modules that empower students to effectively build their own SLPs. These modules not only provide a framework for students to document their comprehensive growth and achievements but also encourage self-reflection and future goal-setting. Additionally, I ensured that schools retain the flexibility to customize their SLPs, offering them access to WebSAMS module and various templates via our TIM EDPlatform Ltd. This project significantly contributed to acknowledging and promoting the all-around development of students, marking a notable advancement in educational tools.

Key Responsibilities:

- Engaged in web application development using PHP3, working both independently and collaboratively with teams.
- Web Application Development: Spearheaded web application projects using PHP3, demonstrating proficiency in both solo and team-based environments.
- Platform Enhancement: Played a central role in enhancing and supporting the myLearning Profile Platform, driving its evolution and functionality.
- Module Development: Designed and implemented key functional modules for creating Student Learning Profiles (SLP), facilitating comprehensive student development documentation.
- Student Empowerment: Enabled student engagement through modules that aid in building SLPs, encouraging self-reflection and goal-setting.

- Customization and Flexibility: Ensured schools can tailor their SLPs, providing access to WebSAMS modules and diverse templates via TIM EDPlatform Ltd.

Tools used: PHP3, MySQL, Javascript, Jquery, Apache, Linux, SQL

CRM System for Industry Oct 2005 – Nov- 2006

Achievements:

- Designed interfaces for web and web applications.

Key Responsibilities:

- Collaboratively developed web applications using Asp.net

Tools used: C#, Asp.net, MSSQL, HTML, CSS, SQL

EDUCATION

University Of Adelaide Adelaide, Australia
Honours Degree of Bachelor Computer Science Jan 2021– DEC 2021

- GPA 5.825, University of Adelaide Mathematics Society, University of Adelaide Computer Club

University Of Adelaide Adelaide, Australia
Bachelor of Mathematical and Computer Sciences in Artificial Intelligence Jan 2018– DEC 2020

- GPA 4.712, Artificial Intelligence Major, University of Adelaide Mathematics Society, University of Adelaide Computer Club

Coventry University Coventry, United Kingdom
Bachelor of Science with Honours in Computing June 2014 – Nov 2015

- First class honours, overseas studying at VTC Shape (School for Higher and Professional Education) in Hong Kong.

Coventry University Coventry, United Kingdom
Bachelor of Science with Honours in Creative Technologies June 2007 – Oct 2008

- Upper second class honours, overseas studying at VTC Peak in Hong Kong

VTC PEAK Hong Kong, China
Professional Diploma in Game Development ITS87 June 2006 – June 2007

- C++ Game Development Foundation (Grade A)
- 2D Game Development Professional Program (Grade A)
- 3D Game Development Professional Program (Grade A)
- Online Game MMORPG Development Professional Program (Grade B)
- J2ME Mobile Game Development Professional (Grade A)
- Awarded EIAEC MMORPG Programming
- Awarded EIAEC 3D Programming Development
- Awarded EIAEC 2D Programming Development
- Awarded EIAEC C++ Programming Development
- Awarded EIAEC J2ME Programming Development
- Having successfully completed the foundation diploma, the diploma in IT Expert, and the diploma in graphic design, VTC PEAK recognized my qualifications and extended an offer for me to join the Professional Diploma in Game Development ITS87 program.

WELKIN Hong Kong, China
Diploma in Graphic Design June 2005 – June 2006

- Awarded WELKIN Diploma in Graphic Design

UNISOFT Hong Kong, China
Diploma in IT Expert June 2001 – June 2002

- Awarded UNISOFT Diploma in IT Expert

Hong Kong Computer Institute Hong Kong, China
Foundation Diploma in Computing June 2000 – June 2001

- Information Technology Fundamental (D)
- Relational Database and Programming (P)
- Introduction to Hypertext and Hypermedia (D)
- English for Business 1 (P)
- Business Accounting (D)
- Information System In Organizations (D)
- Communication Skills for Computing (C)

- Data Structure and Algorithm Analysis (D)
- Business Accounting II (D)
- Mathematics and Statistics for Computing (HD)

ADDITIONAL

- Certification: AWS Certified Cloud Practitioner
- Certification: Cloud Essentials was issued by Amazon Web Services Training and Certification to Sum Wan FU.
- Licence: Provisional Driver's Licence