

Steve Ngai  
Full-Stack .NET Software Engineer  
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Steve Ngai completed his Higher Diploma in Software Engineering at APU University and earned his computing degree (with honours) from the University of Staffordshire. In his previous two jobs, he gained 5+ years of experience in software development in C#.NET. He supported the National Electronic Cheque Information Clearing System (eSPICK) for central bank (Bank Negara), commercial banks and investment bank. Now, he works as a senior software engineer at Quantum. He consistently writes clean, maintainable, and testable codes. He loves to solve complex problems and enjoys learning modern technologies.

## SKILLS / TECHNOLOGIES AND KNOWLEDGE

### Server-Side (Back-End)

c#(asp.net core and net 6) , c# web api 2 , asp.net identity , linq , fluentvalidation , automapper , nunit,xunit , logging,serilog and seq , swagger / swashbuckle , hangfire , health checks , npm , node.js ,

### Data and Tools (Back-End)

rbms database design and sql , entity framework core (orm) , ado.net , json , xml , datawarehouse / datalake , sql server , stored procedure , sql management studio , postgresql , pgadmin , sqlite , nosql , mongodb , elasticsearch and kibana

### Client-side (Front-End)

modern vanillajavascript (es5 and es6) , jest , jquery , blazor , ajax , css 3 , bootstrap 5 , html 5 , pug , sass / scss , gulp 4 , vue.js , linters and formatters (prettier, eslint, beautify) , c# mvc (.net framework) , c# (asp.net core)razorpages ,

### DevOps and Others

docker , git / github / gitlab , azure static web app , azure azure app service , azure container apps , azure functions , azure devops ci/cd , microsoft forms , microsoft graphs , power automate , portainer , tdd / bdd (specflow) , agile / scrum / kanban , azure (deploy restful c# web app) , sdlc , trello , iis (publish mvc c# web app using folder) , nginx , cloud (digital ocean) , sonarqube , mermaidjs and markmap

### Design Principles / Design Pattern / Software Architecture

restful and soap web services , layered architecture , monolithic architecture , microservices architecture , clean architecture , domain driven design , dry , kiss , separation of concerns - soc , solid , yagni , dependency injection (di) and inversion of control (ioc) , repository pattern , data-centric architecture , oo design pattern ,

### Development / Testing Tools

visual studio code , visual studio community , postman

### Soft Skills and Other Skills

analytical , problem-solving , communication , resource planning , project planning , teamwork and collaboration , leadership , office 365 business and sharepoint , zoom, webex, google meet , simple video recording and editing ,

### Domain knowledge

technology , investment banking ,

Learning Goals 2023 / 2024

angular and blazor , hugo , docker swarm / kubernetes (azure | local)

**WORK EXPERIENCE(19 YEARS)**

- **System design and software development:** 5 years
- **Application support (Level 3):** 5 years
- **Educator / trainer (software engineering courses):** 5 years
- **Management:** 2 years
- **Others:** 2 years

Microsoft .NET Developer (Senior-Level) | Quantum Storage Malaysia | Aug2022 - now

Quantum Corporation sells scale-out storage, archive, and data protection solutions for capturing, sharing, and preserving digital assets in physical and virtual environments.

- Report to IT Director. Worked with data engineer, senior software engineer, web technologist, and integration engineer.
- Confirmed within 3 months probation period with good results.
- Successfully developed and deployed a new generic background service to automate the fulfillment process (.NET 6, hangfire, and swagger).
- First person who successfully implemented Azure App. Insights (with Application Map) and health checks.
- Reduced Azure expenses by replacing Azure Logic Apps with new .NET 6 services for the ETL process. Successfully developed and deployed.
- First person who successfully implemented automated unit test and automated integration test and added test task in CI pipeline.
- Successfully developed a utility that will generate static HTML email templates using Javascript and nodeJs.
- Revamp and refactor existing API microservices from .NET 5 to .NET 6.
- Implementing (from planning to full software development cycle) a new Configuration Management Database (CMDB) / IT Asset Management system using .NET 6 (full stack). Completed database design, UI/UX design and prototyping. Development 70% completed.
- Implement automated code review in the CI pipeline to automatically detect bugs, and code smells to reduce technical debts and to detect security vulnerabilities.
- Participate in setting up DevOps CI / CD.
- Participate in 15-30 minutes Daily Scrum Meetings.
- Technologies and tools:
  1. Backend (70%): C# Web Api, .NET 6 , Razor Pages, Swagger, Hangfire, Visual Studio 2022, REST, SOAP, XML, JSON, SQL Server, Azure Container Registry, Azure Devops, TFS, Docker, Docker Swarm, Azure Application Insights ,EF Core 6, Dapper, Xunit .
  2. Front-end (20%): Javascript, nodeJs, VS Code
  3. Design Principles / Design Pattern Applied: Microservice Gateway architecture pattern, Factory pattern, Option pattern, DRY, YAGNI, SOC, OOP, Dependency Injection (DI)
  4. Others (10%): Microsoft Forms , Power Automate , Microsoft Graph, Portainer, Agile, MermaidJs, SonarQube / SonarCloud, Microsoft Dataverse, Microsoft Power BI and Microsoft Power Apps.

Trivia projects for personal learning. POC. Mock-ups | Aug2022 - now

- Mar 2023: Implemented Cloudflare for my personal website to enhance its performance and security. Optimized my online resume webpage to achieve 100/100 performance in GTmetrix and 90/100 in pingdom.
- Mar 2023: Deployed a Jekyll Ruby website with Github Action (CI/CD).

- Feb 2023: Completed Ethereum blockchain web api mock project using .NET 7 and EF Core. Duration ~3-4 days.
- Nov 2022: Setup SonarQube and SonarCloud to automate code review in Azure DevOps (CI Pipeline).
- Sep 2022: Setup Portainer locally. Deployed container using Portainer (Pull from DockerHub).
- Aug 2022: Deployed Web API (NET 6) to Azure App Service Container, Azure SQL Server and Azure Static Web App using GitHub Actions Workflow (CI/CD).

### Full-Stack Software Engineer (Mid-Level) | Affin Hwang Investment Bank Bhd | Aug2020 - July2022

AFFIN Hwang Investment Bank Berhad provides financial services. The Company offers stock brokerage, asset management, treasury bonds, currency exchange, financial advisory, and investment banking services.

- Reported to Solution Architect. Worked with CTO, front-end tech lead, back-end tech leads, business analyst, UI/UX designer, data engineer and end-users.
- Performance appraisal results:
  1. Aug 2020 - Dec 2021: A (Exceeded expectations)
  2. Jan 2021 - Dec 2022: A (Exceeded expectations)
- Increased online trading account opening (eInvest GO) by 20%.
- Self-learned front-end stacks like VueJs (SFC) to take up front-end role on top of back-end role.
- Successfully implemented a microservice to automate data ingestion process (.NET Core 3.1) to replace one of the services from a monolith legacy system (.NET Framework 4.x).
- Developed and maintained REST API services and integration testing using C# and XUnit.
- Migrated Support Microservice from .NET Core 3.1 to NET 6.
- Maintained and enhanced eInvest website and Retail Online Platform using VueJs (SFC) and Vuex.
- Created technical documentation i.e. sequence diagram and flowchart using mermaidJs and MarkMap.
- Created productivity report for the team in Jira.
- Participated in meetings to gather and analyze user requirements.
- Participated in interviewing software engineer.
- Keywords: eInvest Go, Dow Jones, Telegram, Product Information Management System, Back Office, Retail Online Platform, Remisier Management System, Structured Warrant, ISO 20022 message, Reporting Service, EDM Service, AS400 File Ingest Service.
- Technologies and tools:
  1. Backend (70%): C# Web Api, .NET Framework 4.x, .NET 2.2, .NET Core 3.1, EF Core 3, NUnit, Xunit, Specflow and Living Doc.
  2. Frontend (30%): VueJs (SFC), Vuex, Javascript, JQuery, Bootstrap, Pug, Scss, NPM, Gulp, Razor Pages.
  3. Others: Git, Atlassian Jira, Confluence, Azure DevOps, IIS, Figma, Elastic Search, Kibana, NEST, Google Cloud Storage (Google Cloud Platform), mermaidJS, MarkMap.

### Trivia projects for personal learning. POC. Mock-ups | Aug2020 - July2022

- July 2022: Run, view and monitor automated tests in Azure DevOps CI/CD pipeline.
- May 2022: Deployed Task Tracker API in .NET 6 and refactored Task Tracker React app to consume it.
- Oct 2021: Specflow + Living Doc, .NET 6.
- July 2021: Implemented Sonar Cloud (Code Analysis) with GitHub Actions. Completed Unit Testing .NET Core Applications with xUnit .net & MOQ udemy course.
- Jun 2021: Converted online resume from html, css to pug + scss version. Thus, file size reduced by 40%, cleaner code and easier to maintain.
- Apr 2021: Parsed 1000 complex XML files to ElasticSearch using NEST C# in 15 minutes and search with different options.
- Mar 2021: Basic Behavior Driven Development (BDD) in .NET using SpecFlow.
- Mar 2021: Import XML file to SQL Server with SQL Server Integration Services (SSIS)

- Mar 2021: Basic RabbitMQ in C#.
- Feb 2021: File extraction process with Apache Nifi.
- Feb 2021: Completed take-home technical assignment in 24 hours. Given time is 48 hours. This assignment requirement is to implement a service to upload (in xml and csv format) transaction data from files of various formats into database and query transactions by specified criteria. This assignment requires full-stack (Web Api back-end in .NET Core and front-end) technology.
- Jan 2021: Parsed 800 complex XML files (500 Mb total file size) into MongoDB (1 collection with ~180,000 rows) using NodeJs in 1 minute. Parsed 1800 complex XML files (4.7 Gb total file size) into MongoDB (2 collections with ~3,000,000 rows) using C# in 9 minutes. Ingested simple xml files to Elasticsearch with NodeJs and Python.
- Nov-Dec 2020: POC Demo web app CRUD based on JWT with claims (Back-end: .NET Core 3.1, Front-End: vanilla Javascript)
- Nov-Dec 2020: Youtube Api Playlist
- Nov-Dec 2020: The Avengers Character Card (Data from S Api)
- Nov-Dec 2020: World Snooker Players Vue app (Data from Api)
- Nov-Dec 2020: Vuejs eCommerce web apps (without back-end)
- Nov-Dec 2020: Compilation of some Vuejs web apps
- Nov-Dec 2020: Clone sample Ruby on Rails web app (with MySql) to run on Docker in Window 10 and Visual Studio Code

#### Software Engineer cum Trainer | Eduvo Sdn. Bhd. | Jun 2015 - Aug 2020

Eduvo is a vocational school for IT and Business courses. My job scope are:

- Accomplishment 1: After School Management System implemented, it increases productivity and the reports help management to make better decision.
- Accomplishment 2: Software engineering students increased by 300%. Graduated students are now working as full-time programmer in software houses.
- Accomplishment 3: Automated complex school timetable which could generate the complete timetable for all the courses for the entire year where each course is tied to a course lecturer.
- Design and develop training programme (Prof. Diploma in Software Engineering).
- Conduct classroom training for software engineering courses: Object-Oriented Programming, Database Design, Web Programming, System Analysis and Design, Data Structure and Algorithm and Software Architecture.
- Design, developed and maintain School Management System.
- Lead Education & Operation division.
- Technology: C# MVC, Entity-Framework (Code-First), SQL, LINQ, Javascript, CSS, HTML.

#### Trivia projects for personal learning. POC. Mock-ups. | 2018 - Aug 2020

- Cinema Ticket POC System v2 (C#, EF Core, Web Api 2, .NET Core, Blazor)
- Cinema Ticket POC System (C#, EF Core, Web Api 2, Javascript, Ajax) - Console | Web
- Academy Management System (C# MVC, Entity Framework, Javascript, Ajax)
- Call Web API for CRUD operation (C# MVC, HttpClient)
- Cafe Mockup Web App (C# MVC, Entity Framework, Javascript, Ajax).
- eCommerce Web App (Javascript, JQuery)
- Online Banking Web and Console App (C# MVC, Entity Framework, Javascript, Ajax)
- Blackjack web app game (HTML, CSS, Javascript, JQuery)
- Blackjack console app game (C#)
- Calculator web app (HTML, CSS, Javascript, JQuery)
- Calculator desktop app (C#, WPF)
- Death battle web app game (HTML, CSS, Javascript, JQuery)
- Death battle console app game (C#)

#### QC Manager | GHL Systems Bhd | Dec 2012 - Jan 2015

GHL is a leading payment service provider and one of the top merchant acquirers in the ASEAN region. We provide world-class payment services and solutions. My job scope are:

- Reported to CTO.
- Created complex monthly IT Resource Utilization report for CTO.
- Managed Product Management department.
- Ensured product gets certified, especially Terminal Quality Management (TQM).
- Handled software and product documentation, i.e user guide, sequence / process flow diagram and matrix diagram.
- Ensured proper source control and software repositories backup and replicated for all the regions (Malaysia, Thailand, Philipinnes and Wuhan).
- Planned and coordinated training for Level 1 and Level 2 Support.
- Maintained maintenance agreement.

#### Software Consultant | BCS Information Systems Pte Ltd | Aug2008 - Dec2012

BCS Information Systems is the systems integrator for real-time payment infrastructure for central and commercial banks. My job scope are:

- Application system support (L2) for cheque clearing banking system.
  1. CTCS Gateway Interface (GWC): EPKI – Outward – GWC and Bank Host, Inward Downloading – ISC, GWC and Bank Host, Transmission – OCS and GWC, Transmission – OCS and PODClient
  2. Bank and BNM Web: Branch and Routing Policy Request
  3. Bank Negara Malaysia (BNM) – Back End Host: Inward Generation, Generate Billing, Generate Settlement File, File and Data Archival, Report
  4. CSS (Billing and Settlement) / RBE / FMS
- Investigate problems log and reply to customer.
- Create and update system documentations
- Fix system bugs and conduct SIT and release fixes.
- Enhance existing modules.
- Technology: Java, J2EE, EJB, JSP, VB.NET and DB2 database, SQL.

#### System Developer | Allianz Life Insurance Malaysia Bhd | Jan2008 - Aug2008

Allianz Life offers a comprehensive range of life and health insurance as well as investment-linked products and is one of the fastest growing life insurers in Malaysia. My job scope are:

- Developed and enhanced existing systems using ASP.NET.
- Undertake comprehensive unit and integrated testing.
- Ensured proper and complete UAT sign off on business applications.

#### Web Developer | MOL AccessPortal Bhd | Jun2007 - Jan2008

MOL is one of the biggest payment companies in Southeast Asia, with over 680000 physical and online payment channels. My job scope are:

- Designed, developed and maintained web application using ASP.NET.

#### IT Executive | GuocoLand (Malaysia) Bhd | Jul2005 - Feb2007

Guocoland is the property arm of Hong Leong Group. The company is an established property developer in developing community centric residential townships as well as innovative commercial and integrated development projects in Malaysia. My job scope are:

- Design, develop and maintain intranet, corporate website and intranet application (e-Leave system).
- Provide technical support and consultancy to end users.
- IT administration work.
- Assist IT Manager in carrying out successful implementation and project management of all IT projects.
- Perform backup and restoration for 3 servers.
- Technology: Microsoft Classic ASP, SQL, MySQL database

IT Executive | Asli Mechanical Sdn Bhd | Oct2003 - Jul2005

Asli Mechanical Sdn Bhd is manufacturer for grilles and diffusers since 1972. My job scope are:

- Design, develop and maintain internal web application.
- Window application support and maintain networking for 20 computers.
- Technology: Microsoft Classic ASP, SQL, MySQL database.

Web Developer | City-Link Express Sdn Bhd | Oct2002 - Oct2003

City-Link Express is the first courier company in Malaysia. My job scope are:

- Design, develop and enhance intranet web application and corporate website.
- Technology: Microsoft Classic ASP, SQL, MySQL database

## JOB STATUS AND PREFERENCE

- **Status:** Open for opportunities (relevant to most of my skillsets)
- **Fully Vaccinated (Covid-19):** Yes, June 2021 (Phizer)
- **Companies preference:** MNC company
- **Technology preference:** modern software development (minimum legacy system)
- **Location preference:** Work from office (hybrid)
- **Interview assessment (high preference):** any form of technical test (online/offline, close/open book, MCQ/Subjective, knowledge/technical), take-home assignment
- **Interview assessment (low preference):** cognitive test, behavior/personality test
- **Position preference:** Senior software engineer
- **Expected salary range:** [show](#)
- **Availability:** 2 months notice

## EDUCATION

- Bachelor in Computing | **University of Staffordshire** | Year 2001 - 2002
- Higher Diploma in Software Engineering | **University of APU** | Year 1998 - 2000
- Certifications

## LANGUAGES

- **English:** Proficient
- **Cantonese:** Native language
- **Bahasa Melayu:** Moderate
- **Mandarin:** Beginner

## INTERESTS

- **Modern board games:** Tokaido, Puerto Rico
- **Sports:** Futsal, Badminton

## REFERENCES

[to be given upon request]

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