Nguyen Tran Trung Hau

Software Engineer Fresher

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OBJECTIVE

- Motivated final-year student with a strong passion for software development, particularly in front-end, back-end, and game programming.
- Seeking a full-time position where I can leverage my technical skills, contribute to innovative projects, and grow as a developer in a dynamic professional environment.
- Eager to apply my knowledge of industry best practices, explore emerging technologies, and collaborate with talented teams to create impactful solutions. With a solid foundation in web development and a growing interest in game development, I am committed to building a successful career that combines creativity, problem-solving, and cutting-edge technology.

EDUCATION

Degree Pursuing: Bachelor of Science in Information Technology　　　　2021 - 2025
Institution: University of Science - VNUHCM

Expected Graduation: 2025

I am currently a final-year student pursuing a Bachelor of Science in Information Technology at University of Science - VNUHCM. This program has equipped me with a solid foundation in various aspects of information technology, including programming, database management, web development, and operating systems.

GPA

3.6/4.0　　　　　　　　　　　　　　　　　　　　　　　　　　　　3 - 2025

RELEVANT COURSEWORK

Ho Chi Minh City University of Science (HCMUS) - VNUHCM　　　　2021 - Now

Data Structures and Algorithms, Object-Oriented Programming, Database Management Systems. Web Development, Operating Systems.

- Gained proficiency in programming languages such as Python, Java, and C++, and have developed a strong understanding of fundamental concepts like data structures and algorithms.
- Delved into web development, honing my skills in HTML, CSS, and JavaScript, and have worked extensively with popular frameworks like React or cross-platform like NodeJs.
- Emphasized the importance of effective database management. I have worked with diverse database systems, including MySQL, PostgreSQL, and MongoDB, gaining practical experience in database design, optimization, and maintenance.

SeLab/ISlab - Ho Chi Minh City University of Science (HCMUS)　　　　2024 - Now

Game Developer Unity, UI/UX Design, Database Management System, Blender 3D Design.

- Explored the fundamentals of game development using Unity, including scripting in C#, game mechanics design, and asset integration.
- Developed small and medium-scale 2D/3D/AR games, focusing on optimizing performance, implementing physics-based interactions, and creating gameplay.
- Gained proficiency in using Blender for 3D modeling, texturing, rigging, and animation, creating assets for both game development and multimedia projects.

- Gained hands-on experience with Unity Gaming Services (UGS), Firebase, and PlayFab to design and implement database systems for game applications. Learned to store, manage, and retrieve game data efficiently, ensuring seamless integration between client-side and server-side operations.
- Developed skills in deploying real-time databases for multiplayer games, focusing on synchronization, scalability, and data security.
- Worked on projects involving player authentication, leaderboard management, and in-game asset tracking using cloud-based solutions like Firebase and UGS.

ACTIVITIES

SElab/ISlab, Ho Chi Minh City University of Science (HCMUS)   11/2024 - Now

Undergraduate Researcher | Advisor: Dr. Lê Khánh Duy

- Developed and implemented an augmented reality (AR) game to teach chemical element interactions (polyatomic vs. monatomic ions) in high school chemistry.
- Engineered multi-device interaction capabilities, allowing seamless collaboration between smartphones, tablets, and AR headsets for group-based learning.
- Integrated 3D molecular modeling and gesture-based controls to enhance spatial understanding of chemical reactions.

SElab/ISlab, Ho Chi Minh City University of Science (HCMUS)   6/2024 - 12/2024

Game Development Intern/ Mobile Development Intern

- Designed and developed an innovative match-3 game with enhanced gameplay mechanics, introducing dynamic challenges and adaptive difficulty to improve engagement compared to traditional match-3 formats.
- Utilized Unity and C# to implement core features, including level progression, scoring systems, and real-time feedback mechanisms.

MyXTeam   10/2023 - 01/2024

Intern

- Gain experience in back-end and front-end roles through an internship.
- Familiarize myself with the project structure of websites using frameworks such as NestJS and Next.js.

MindX - Technology School   05/2022 - 02/2023

Mentor

- Designed and implemented engaging curriculum modules for game making and web making, tailored to the age and skill level of the students.

INTERESTS

Artificial Intelligence, Machine Learning, Web Development, Game Development, Open Source Contributions.

SKILLS

Programming Languages	Python, Java, C++, HTML/CSS, JavaScript, TypeScript, C#
Frameworks and Libraries	Reactjs, Nextjs, Nestjs, Node.js, Spring Boot.
Game Engine	Unity, ARCore, Game Maker.
Platform	AWS, Microsoft Azure, Google Cloud Platform, Unity Gaming Service, Firebase, PlayFab.
Database Management	AWS, MySQL, PostgreSQL, MongoDB, Sql Server.

Design	Blender, Figma, UI/UX prototyping, 3D modeling, Agile/Scrum methodologies.

SOFT SKILLS

Communication & Language Proficiency:
- English : intermediate proficiency in speaking and writing, with moderate reading and listening skills; capable of understanding technical documents and conducting research with some effort.
- French : Basic speaking, writing, and listening skills with moderate reading proficiency, enabling comprehension of written materials such as articles and reports.

Research & Analytical Skills :
- Skilled in analyzing and synthesizing complex information from technical documents, research papers, and online resources to support project development and problem-solving.

Team Collaboration & Adaptability :
- Experienced in working effectively within teams, contributing ideas, and adapting to dynamic environments during group projects and lab work.

Attention to Detail & Problem-Solving :
- Demonstrated ability to focus on intricate details while maintaining a solution-oriented mindset, ensuring high-quality outcomes in both academic and practical tasks.

PROJECTS

MR-Chemistry-Game

(11/2024 - Now)

Name of customer	Students and professionals in the field of chemistry.
Description project	Developed an innovative augmented reality (AR) card game designed to help users learn and visualize the combinations of mono and poly elements through interactive gameplay. The game focuses on teaching chemical bonding principles and practical applications of mono-poly element pairs, making complex chemistry concepts more accessible and engaging. By leveraging AR technology, the game provides an immersive experience that visually demonstrates chemical bonds and their real-world uses.
Team size	2
My position in project	Served as the lead developer in a two-person team, responsible for designing and implementing core functionalities. Researched and implemented multitasking mechanisms to enable seamless multi-device connectivity for multiplayer gameplay. Integrated ARCore to create an interactive AR interface, allowing players to visualize chemical bonds and reactions in real-time. Designed and developed 3D models for game assets, ensuring accuracy and alignment with chemistry principles.
Achievement	Successfully completed the foundational multitasking framework by March 2025, enabling stable multi-device connections for collaborative gameplay. Developed a functional AR-based gameplay interface , providing users with an intuitive and visually engaging learning experience.
Github Link	https://github.com/trunghau0963/WordSearch

WordSearch Revolution (Personal Project)

(6/2024 - 12/2024)

Name of customer	Children and students aiming to improve their vocabulary in a fun and engaging way.
Description project	Developed a mobile application that gamifies vocabulary learning, designed to make word practice enjoyable and effective for young learners. The game features multiple gameplay modes, including:

	WordSearch Mode : Players unlock new vocabulary by finding and connecting characters on a letter matrix to form correct words. WordZee Mode : A review mode where players practice previously saved unfamiliar words from their personal learning list. "Ultimate Mode" : A dynamic section featuring innovative gameplay mechanics such as Wordle and Candy Crush-inspired challenges, ensuring long-term engagement and reducing monotony. The app also includes a feature to save unfamiliar words into a personalized learning list, allowing players to revisit and reinforce their vocabulary through interactive mini-games. With a vast vocabulary database and plans for continuous updates, the application aims to surpass traditional word games by combining education with entertainment.
Technologies Used	Unity, Unity Gaming Services (UGS), C#, Mobile UI/UX Design Principles.
My position in project	Familiarized myself with Unity Engine , leveraging its tools to design and implement core functionalities of the game. Designed the UI/UX framework for the mobile platform. Conducted in-depth research on Firebase, PlayFab, and Unity Gaming Services (UGS) to integrate cloud-based solutions for user data storage and management. Implemented these platforms to enable seamless data synchronization, player progress tracking, and leaderboard functionality.
Achievement	Successfully completed two core gameplay modes: WordSearch (vocabulary discovery) and WordZee (vocabulary review). Developed two additional gameplay modes under the "Ultimate Mode" category: Wordle and Candy Crush-inspired challenges , enhancing replayability and user engagement. Built a scalable architecture that supports future content and gameplay updates, ensuring long-term usability and growth potential.
Github Link	https://github.com/ndungminh2003/MR-Chemistry-Game

Learning Management System (LMS) (Team Project)

(5/2024 - 8/2024)

Name of customer	Teachers and students, providing a platform for teachers to store and manage video lectures and assignments, while enabling students to learn through videos and complete exercises online.
Description project	Developed a web-based Learning Management System (LMS) inspired by popular LMS platforms on the market. The project focuses on enhancing the efficiency of database design and query optimization to support scalability for thousands or even millions of users. The platform allows teachers to upload and manage video lectures and assignments, while students can access learning materials, watch videos, and submit assignments seamlessly. Key features include: Teacher Dashboard : Upload, organize, and manage video lectures and assignments. Student Interface : Watch videos, complete assignments, and track progress. Database Optimization : Designed and implemented advanced database structures with transactions, partitioning, and indexing to ensure high performance and scalability.
Technologies Used	Fullstack - NextJs, Database - Sql server
My position in project	Optimized the database architecture by designing efficient schemas, writing complex SQL queries, and implementing transactions and partitioning to enhance query performance. Developed the front-end interface using Next.js , ensuring a responsive and user-friendly design tailored for both teachers and students. Supported the development of the back-end infrastructure , contributing to API integration and server-side logic to handle user requests efficiently.
Achievement	Successfully implemented CRUD functionalities for core features such as video uploads, assignment submissions, and progress tracking. Achieved significant improvements in database performance , enabling the system to handle large-scale data storage and retrieval for thousands of concurrent users.

GitHub Link	https://github.com/LeStolz/LMS

Library/Book Management System (LMS) Application (Team Project)

(01/2024 - 04/2024   )

Name of customer	The BookStore Management System application is designed to be used by various users within a bookstore environment such as Store Manager, Bookstore Staff, Cashiers,...
Description project	The Library/BookStore Management System is a Java Swing-based application designed to streamline the management of a bookstore's operations. It provides an intuitive graphical interface for library staff or bookstore staff to efficiently handle various tasks such as inventory management, customer transactions, and sales tracking.
Team size	5
My position in project	Leader - Java Swing
Achievement	Built using Java Swing and PostgreSQL, LMS optimizes the bookstore's day-to-day operations by automating tasks such as inventory management and sales processing, leading to improved efficiency and productivity.
GitHub Link	https://github.com/trunghau0963/LMS

Hospital Management System (Hobby project)

(12/2023 - 2/2024   )

Name of customer	Include dental practices, hospitals, and individual doctors who use the software to manage their administrative tasks, appointments, patient records, billing, and other aspects of their dental practice.
Description project	A Hospital management system (HMS) can be defined as an integrated software that handles different aspects of clinic workflows, such as administrative, dentist, staff, and patient.
Team size	Personal
My position in project	Fullstack - NextJs, NestJs
Achievement	Successfully deployed the platform, providing users with a seamless appointment booking experience.
GitHub Link	https://github.com/trunghau0963/HMS

Dentist Management System (Team project)

(11/2023 - 1/2024   )

Name of customer	Include dental practices, clinics, and individual dentists who use the software to manage their administrative tasks, appointments, patient records, billing, and other aspects of their dental practice.
Description project	A dentist management system (DMS) can be defined as an integrated software that handles different aspects of clinic workflows, such as administrative, dentist, staff, and patient.
Team size	2
My position in project	Fullstack - HTMX, NodeJs
Achievement	Successfully deployed the platform, providing users with a seamless appointment booking experience.
GitHub Link	https://github.com/trunghau0963/HQTCSDL

Online Movie Viewing Platform (Team Project)

(05/2023 - 08/2023)

Name of customer	The user uses online methods to watch movies
Description project	Led a team to develop an intuitive online movie viewing platform. Implemented features for user authentication, movie categorization, and intuitive interface design.
Team size	4
Your position in project	Fullstack - MERN
Achievement	Successfully deployed the platform, providing users with a seamless movie viewing experience
GitHub Link	https://github.com/trunghau0963/Cinomnia

ADDITIONAL INFORMATION

I have many separate personal projects, for the purpose of learning and developing programming skills. Please refer to my GitHub profile for a comprehensive list of these projects.

Personal Projects on GitHub: https://github.com/trunghau0963