Phat Duong Cao MSc. BSc.

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ENTRY LEVEL SOFTWARE DEVELOPER | COMPUTER SCIENCE MASTERS GRADUATE

A fresh dedicated and enthusiastic master's Graduate having recently completed an MSc. in Computer Science at the University ofBath with a focus on software engineering, AI, and machine learning.

I am passionate about learning new technologies and always keep improving my self-skills. Hope that I could contribute to the development of your company.

EDUCATION & QUALIFICATIONS

MSC. in Computer Science, UNIVERSITY OF BATH, Bath, UK **Aug'20 – Nov'21**

- **Overall Result:** 61.2% (Merit) (equivalent to >70% in Vietnam and to 3.0 – 3.3 GPA)
- **2023 The University of Bath's overall ranking in the UK:** 7th place[1]
- **IT Essentials:** Programming Languages: *C, C++, Java, Python*; Databases; Project working cycles.
- **Applied Knowledge:** AI; Reinforcement learning; Logical thinking; Coding.
- **Dissertation:** A machine learning project creating a system to learn to classify UK flowers (Achieved 66%).

Pre-Master Degree for Science & Engineering, UNIVERSITY OF BRISTOL (KAPLAN), Bristol, UK **Jan'20 – Aug'20**

- **Overall Result:** 75%
- **Research Skills:** Preparing specific skills for Masters level research for dissertation.
- **Project Management:** Skills to conduct projects successfully throughout the course.
- **Mathematics:** Specific to science and IT field.
- **English Language:** Written 65%, Listening 65%, Reading 65%, Speaking 65%

BSc. in IT Service, AUCKLAND UNIVERSITY OF TECHNOLOGY, Ho Chi Minh City, Vietnam **Sep'14 – Oct'18**

- **Overall Result:** GPA 3.0/4.0
- Degree conferred from New Zealand university via its study hub in Ho Chi Minh City.
- Completed final project working inside a real company supported by university supervisor and company staff.

Full-stack Website Developer Cybersoft **Dec'22 –Now**

- Front-end Course including: basic knowledge of HTML, CSS, Bootstrap, JS(ES6/ES5), SASS, API(Axios), React JS and Git.

KEY SKILLS

- **Software Engineering:** Applying the principles of software engineering to design, develop, maintain, test and evaluate computer software.
- **Project Management:** Experienced in planning, designing and delivering projects on brief and on time.
- **Agile Methods:** Including Scrum & Kanban.
- **Team Leadership:** A team leader. Able to rapidly understand software development landscapes, envision improved future scenarios, engage the right people and direct execution with excellence.
- **Teamwork & Collaboration:** A diligent and thoughtful team member. Always focused on achieving team objectives, helping other parts of project teams and delivering results together.
- **Programming Languages:** Python | C | C++ | HTML | CSS | Bootstrap | SQL |JS
- **Languages:** English – working proficiency. Vietnamese – full native proficiency.

[1] See https://www.theguardian.com/education/ng-interactive/2022/sep/24/the-guardian-university-guide-2023-the-rankings

SELECTED PROJECTS & ACHIEVEMENTS

Created a machine learning system to classify popular UK flowers for MSc. dissertation project in 2021.
Developed advanced knowledge of *deep learning*. Created an original dataset and segmented image dataset using flower data from Oxford. Implemented 3 deep learning models to make accurate comparisons. Ultimately, the system could classify UK flowers with 95% accuracy while my custom system achieved 75% accuracy – a result which could be improved by training the machine with additional datasets.

Worked in Coding Team to create a Machine Learning solution for a system to beat a bot in a tennis game.
Collaborated within a Coding Team using the Python programming language to enable the "Reinforcement Learning Method" dependent on the DQN (Double Q Learning) Method. After 1000 games the system could beat the bot. After 1500 games, the system could win some sets of the match. Overall, the system applied Machine Learning to learn how to play. However, it could not learn efficiently which would enable faster winning of sets.

Successfully used "Constraint Satisfaction Method" to develop an AI system to win Sudoku games in AI module.
As part of MSc. AI module, designed a machine using *Python* to solve Sudoku games in the fastest possible time. Ultimately it could solve the first 3 levels ("Very Easy"/"Easy"/"Medium") 100% of the time in less than 1 second. The system was able to solve 50% of "Hard" level games in under 30 seconds but with some recorded errors.

Achieved 70% for a project using Java to debug and simplify the code for a "Connect 4" game.
Organised the code with OOB structure, reduced complexity and added new functions to enable adjustments to the bot and the winning conditions.

Achieved first place team recognition in challenge to create a game in team of 7 during *University of Bath MSc*.
The final challenge within a Software Engineering module required collaboration in teams to create a video game using the *Agile Methodology* (*Scrum Method*). Worked as a Documenter & Tester – recording all information from meetings and detailing progressive versions of the game throughout testing phases to guide revisions by Coders.

Created a successful project to use face recognition to check student attendance as part of BSc. degree in 2018.
This was the final R&D project to achieve the degree. The requirement was to enhance and fix bugs within an existing system and add a face recognition capability. Studied to gain essential knowledge of *Java* and *JavaScript* programming. Ultimately, the system had most bugs fixed and was launched as a functioning *IOS* app.

Personal Projects – 01/2023-present.
I have learned and participated in many Front-end projects while studying at Cybersoft. This is the GitHub link to these Projects GitHub.

PERSONAL INTERESTS

Travel: Including UK, Singapore, Malaysia, Korea & Vietnam