Curriculum Vitae

Full name:	DANG NHU TOAN
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EDUCATION

2009 - 2011:	Master of Science in Information Technology, Lac Hong University, Bien Hoa City, Dong Nai Province
2004 - 2009:	Engineer of Information Technology, Lac Hong University, Bien Hoa City, Dong Nai Province

Other:

- ✓ Certificate in University Teaching, HCMC University of Pedagogy
- ✓ Project Management Fundamentals Certificate.

EXPERIENCE

10/2008 - 2/2009: Studying (last year student) and working for Education and Training Department of Lac Hong University as temporary jobs.

✓ Designed database and developed Student Management software based on Mapinfo software (Programming Language MapBasic)

✓ Designed and developed Internal Material Management software for Education and Training Department (MS SQL 2005 with VC#.NET 2005)

3/2009 – 5/2010: Worked at Information Technology Department of Lac Hong University

3/2009 – 12/2009: Worked as English Lab Room Manager

➢ **Technique**

✓ Setup, configured and managed network and database.

✓ Installed, and helped teachers using H-CLASS V system.

✓ Checked, observed and reported states of system in Lab Room.

✓ Handled all the jobs arising.

➢ **Profession skill**

✓ Taught Programming C, Data Structure and Database Management System subjects at Ispace College of information technology in Bien Hoa city.

01/2010 – 5/2011: Worked as Multimedia Room Manager

➢ **Management**

✓ Setup, configured and managed network and database.

✓ Installed, and helped teachers using system.

✓ Checked, observed and reported states of system in Lab Room.

- ✓ Handled all the jobs arising.
- ➤ **Professional skill**
  - ✓ Taught the Programming Language C/C++, Data Structure and Algorithm, Analysis and Design Object Oriented System. SQL Database Management System, and Information Technology Project Management
  - ✓ Led the students doing science topic.
  - ✓ Analyzed and designed database for "Building specified information system for influenza in Vietnam" project (MS SQL 2005)
  - ✓ Analyzed, designed and developed "Building tool to display flu affected areas in Vietnam" project (MS SQL 2005 and VC#.NET 2005)
  - ✓ Analyzed, designed and developed Construction Invoice Management software for Phi Truong Limited Company (MS SQL 2005 and VB.NET 2005) (part-time job)
- ➤ **Publish Research topic**
  - ✓ Phan Manh Thuong, Lam Thi Hoa Binh, Dang Nhu Toan, Tran Thien Minh and Tran Van Lang, "Indexing the structural proteins database", Teacher Science Research Conference of Lac Hong University, 2011.
  - ✓ Dang Nhu Toan, Master Research Topic, "Paralleling the finding shortest path algorithm in the large data with MPI", 2011

6/2011 – 12/2011: Worked for MMSoftware Company Limited as Research and Development Team as Team Leader.

- ➤ **Management**
  - ✓ *Managed Research and Development Team*
    - Communicated with customers and analyzed user requirements (Documents: functional requirements, Project change request, Project scope and Proposal)
    - Researched the new technology for new requirements/projects
    - Developed all .NET projects
    - Coordinated member of each project
    - Managed quality of .NET projects

- Contacted with clients to receive requirements or deliver software

✓ *Managed QA Team*

- Tested the software and wrote technical documents reports (Documents: Deployment for UAT, Issue log, and UAT Test Case)

- Ensured the software development cycle (Documents: SQA report and QA Performance report)

✓ *Managed System Admin Team*

- Developed, supported for Management Information System, Web applications, business applications (include: Configured, deployed, and maintained database and system) (Documents: Deployment Setting and Instruction, and Deployment Plan)

✓ Summarized and reported to CEO all .NET projects status (Project status report, Time sheet report, R&D Action Plan, QA Action Plan, Summary of Equipment, Computer Configuration, Daily/Weekly/Monthly report)

➢ **Professional skill**

✓ Developed the Point of Sale software system (DB2 of IBM with VB.NET 2003)

✓ Supported other developers about .NET technical

✓ Supported System Admin deploying some services and database of MS SQL Server 2005

✓ Optimized source code (structure and syntax) to improve performance

✓ Optimized SQL query to improve I/O data

✓ Customized CMS (Drupal, WordPress, Joomla)

✓ Followed secure coding standard: Common Weakness Enumeration (CWE) and Open Web Application Security Project (OWASP) to ensure security of website and database

1/2012 – 9/2014:   Working for Fairfield Vietnam Company Limited as Software Developer Team Leader

➢ **Management**

- ✓ Coordinated Software Developers for each projects in each developing period.

- ✓ Supported all Software Developer to ensured deliver source code on time.

- ✓ Training and providing for new software developers about framework, system library, specified open source library (LAPACK, Kriging, GSLIB, FFTW, etc.), programming environment (FORTRAN, JAVA, MATLAB, etc.)

- ✓ Summarized status of all projects and reported directly to Software Development Group Manager

➢ **Professional skill**

- ✓ Developed module/software on Linux environment

- ✓ Supported technical staff (geophysics) process seismic data

- ✓ Detected system errors in seismic data processing

- ✓ Respond to training new programmers about frameworks, software development standard and technical programming (logic, language, data structure, etc.)

- ✓ Responded to developing all projects about parallel programming (MPI, OPENMP) for performance (time)

- ✓ Researched and optimized algorithms to enhance seismic data quality

- ✓ Tested other modules (User interface and manual test)

- ✓ Supported System Admin team deployed local website system on Linux

- ✓ Solved system issues (conflicted between old and new library, using wrong library version, incompatibility library, etc.

- ✓ Packaged, delivered release modules for Houston (the main owner of the company) and Indonesia (branch). Contacted with them to solve occurred problems (fixed bugs, upgraded library, helped configure system, etc.)

- **Project Information**
  - ✓ *Developed 3D-SRME project as Team Leader (From Feb-2012 to Aug-2012)*

    - 3D-SRME (3-Dimensional Surface Related Multiple Elimination) is a standard-lone software which was implemented in FORTRAN and C/C++ by Fairfield Nodal Company (Houston, USA)

    - It used to process seismic data with very large calculation and data amount.

    - Solved memory issue: The memory of node (workstation) is not enough to allocate for input data (requires about 54GB allocated memory/node)

    - Solved bottlenecks of network bandwidth issue: in the same time, many node access to a RAID and read/write a large data

    - Solved run-time issue: it takes very long time to processing a production seismic data (4-6 months with 30 nodes, 12-cores/node and 48GB/node)

    - Result: Applied MPI to distribute data from a RAID to many different RAID. It solved bottlenecks of network bandwidth. After that, combined MPI (distributed-memory) with OPENMP (shared-memory) to reduce allocated memory (reduce allocated memory to 43GB/node) and enhance performance (reduce run-time to 1-1.5 months with the same nodes)

    This was a most important project of company in period 2012-2013 because some bidding resumes in 3-D seismic data processing required 3-D SRME module/software.

- ✓ *Researched and developed EMD project as Researcher and Team Leader (From Sep-2012 to Jul-2013)*

  - EMD (Empirical Mode Decomposition) is a module to attenuate noise in both time-domain and frequency-domain

  - Researched EMD method and implemented demo in Matlab.

  - Converted Matlab code to C++ code in WKG (an environment was developed by Fairfield Nodal Company, based on ProMAX 3D software of Landmark) for 1-D in frequency-domain and 1-D & 2-D in time-domain

  This is new module. It can remove cable and swell noises in time-domain and attenuate criss-crossing artifact and background noise in frequency-domain.

- ✓ *Developed 3D GBM project as Developer (From Aug-2013 to Mar-2014)*

  - 3D GBM (3-Dimensional Gauss Beam Migration) is a module to enhance seismic data quality. Migration is an important step in seismic data processing

  - Implemented new algorithms which were developed by Team Leader and Researcher (PhD in Geophysics from Houston and Mathematics from company)

  - Solved memory issue: The memory of node (workstation) is not enough to allocate for input data (requires about 28GB allocated memory/1 node/1 core)

  - Solved run-time issue: it takes long time to processing a production seismic data (4-6 weeks in one node, 12-cores/node and 48GB/node)

  - Result: improved performance (memory and run-time) by implementing PVM combined with OPENMP. The current module can use all cores in a workstation with least allocated memory, and reduce run-time to 1 week/1 node.

  This is a most important module of company in present period. As 3D-SRME module, almost bidding resumes in 3D seismic data processing required 3D GBM module.

- ✓ *Developed BROADBAND project as Software Developer (From Feb-2014 to Aug-2014)*

  - BROADBAND is a module to enhance resolution of seismic image. It support user to detect multi-layout of geometry.

  - Implemented some functions in BROADBAND, Q-PSDM (Q-Post Stack Depth Migration) projects: In 2014, the Broadband is a most hot topic which oil/gas care. To get new contracts, Fairfield must developing Broadband project to satisfy requirements of bidding resumes.

- ➤ **Publish Research topic**

  - ✓ Le Anh Ha, Tran Thanh Do, Dang Nhu Toan, "A preliminary application of the empirical mode decomposition to seismic noise attenuation at Fairfield Vietnam", 2012

10/2014 – present: Working for FPT-Software Company Limited as Solution Architect and Project Manager

- ➤ **Management**

  - ✓ Training for new fresher about process, technical programming, and soft skill.

  - ✓ Standardizes detail design document, unit test document

  - ✓ Standardizes maintenance process

  - ✓ Coaching member improve programming skill, document skill

  - ✓ Interview junior (JAVA, .NET, C++) and senior developers (.NET, C++)

  - ✓ Evaluate staff when contract is expired

- ➤ **Professional skill**

  - ✓ Join to new projects which are new systems, high priority (for business) or complex projects to investigate and propose solution with other high level developers.

  - ✓ Support other project managers to solve issues which occurred in projects.

> **Project Information**

  ✓ *Develop Restructure Patient Database as Team Leader (From Oct-2014 to Dec-2014)*

  - Project information: In current system (ultrasound machine) of JP's Customer, the performance when query patient information from database is low. The project divides to 2 steps. Step 1, migrate patient information from Access database to SQLite database, build the new mechanism that allow use the same as DAO of Microsoft Access. Step 2, restructure patient database that reduce duplicate information, enhance access speed.

  - Technical uses: C++, SQLite database

  - Project size: 5 members.

  ✓ *Develop Patient Information Screen as Team Leader (50%, from Jan-2015 to Sep-2015)*

  - Project information: ID Screen allow user manage patient information in ultrasound machine. The old system uses ID Screen to contain information as an object. The target of project is developing new ID Screen that operates independent with system, migrate patient information to share memory.

  - Technical uses: C++, MFC, SQLite database

  - Project size: min: 5 members, max: 13 members

  ✓ *Support main project as Project Technical Leader (50%, from Jan-2015 to Sep-2015)*

  - Project information: this is a main project of a specific Customer. Every month, this customer will order some requirements, and ID Screen project above is a sub project.

  - As project technical leader, I support all sub projects about solution, technical, contact to customer to clear requirements

✓ *Develop Matlab project as Project Manager (50%, from Jul-2015 to Sep-2015, 100% from Sep-2015 to present)*

- Project information: this project includes 3 modules: Automatically measures Bi-Parietal Diameter (BPD), Femur length (FL) and Abdominal Circumference (AC). The target of project is converting Customer's algorithm from Matlab to C++, create corresponding DLL. The risk of project is leak resource with Matlab programming skill, Mathematic knowledge. Almost member is fresher and distribute in 2 locations. To solve technical problem, I must break down all functions, evaluate weight for each function and break-down training, investigation strategy for all member, includes high level members.

- Technical uses: C++, LAPACK, OpenCV

- Project size: 13 member (8 in HCM, 5 in Can Tho) from Jul-2015 to Sep-2015, 5 member from Sep-2015 to present

ADVANCED SKILL

➢ **Knowledge of principle**

- Object Oriented Programming

- Analysis and design database management system (object oriented, related)

- Software Development cycle (Agile, Scrum Master)

- Software testing

➢ **Knowledge of system**

- Linux system (CentOS 5.5/6.0, Ubuntu Server) (basic)

- MS Windows Server 2003/2008 (basic and advanced)

- Webserver (Linux, Windows)

- MS SQL 2005/2008 (basic and advanced), MySQL (basic)

➢ **Knowledge of Mobile Application (Android)**

- Android SDK

- Phonegap

PERSONAL SKILL

✓ Ability to setup plans (football, team building and etc.) for Trace Union or company (as Vice Chairman of Trade Union)

✓ Proactive, creative, careful, enthusiastic

✓ Ability to read and write technical documents in English

✓ Ability to oral communicate in English

✓ Ability to work independent and teamwork

✓ Ability to work under high pressure

APPENDIX: PROGRAMMING EXPERIENCE

SKILL PROGRAMMING		
Programming Languages		**Experience-year**
Programming Principle		
	C,C++	7
Parallel	OpenMP, MPI, PVM, CUDA	5
	Windows Message, Thread	1
Framework		
.Net	ADO.Net	7
	ASP.Net	7
	C#.Net	7
	VB.Net	7
	MVC	7
Java	Java	3
	J2EE	3
Mobile	Android	2
	Phonegap	2
Database Management		
	MS SQL Server 2005/2008	7
	MySQL	2
	DB2	2
Analysis & Design		
	UML	7
	OOP	7
Operating System		
	Windows Server 2003/2008	3
	Linux (CentOS 5.5, Ubuntu Server)	3
Others		
Science Computing	MATLAB, Fortran, …	5
Network	Configure Router (Cisco)	2

APPENDIX: CERTIFICATE