**HOAI PHUONG NGUYEN**

TechnoStar Co., Ltd, Tokyo, Japan,

Software Developer,

Portfolio: <https://github.com/NguyenHoaiPhuong>

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**PERSONAL PROFILE**

+2.5–year experience in software development with a wide range of skills: C/ C++, Python, Golang, Qt, MFC, SQL database, BLAS, LAPACK, MPI, numerical programming and Design Patterns.

+7–year experience in Machine design and FEM Analysis.

+ Working abroad: 2.5 years in Japan, 1 month in Germany, 2 months in India and 6 months in Thailand.

**EDUCATIONAL QUALIFICATIONS**

**2004 – 2009: Ho Chi Minh City University of Technology, 297 Ly Thuong Kiet Street, Dist. 10, HCM City, Viet Nam**

**One of the best students in the University**

* Bachelor of Mechanical Engineering: **Very Good** rank.
* Silver medal for the second position of the promotion in the Faculty of Mechanics (2nd/ 400).
* GPA: 8.33/10 with Bachelor Thesis evaluated by 9.10/10 grade point.
* Award of Vietnamese National Mathematical Olympiad for Student 2005.
* Student grants:

- Annual awards for Honor Student of the University from 2004 to 2009 (10 semesters).

- Doosan award for excellent student in 2008.

- Sorun award for excellent student in 2008.

- Petronas English award in 2008.

**2001 – 2004: Le Quy Don High School for Gifted Student:**

**Top 30th of the best mathematical students in Viet Nam.**

* Baccalaureate: **Good rank**.
* **Third prize** for Vietnamese National Mathematical Olympiad 2003.
* **Gold medal** in the 30/4 Mathematical Olympiad (competition for students from Viet Nam’s South) 2003.
* **Gold medal** in the 30/4 Mathematical Olympiad (competition for students from Viet Nam’s South) 2002.
* **Third prize** for Mathematics and Youth Magazine 2002.

**INFORMATICS**

* Programming Languages: **C/C++**, **Python**, **Golang**.
* GUI programming: **MFC**, **Qt**.
* Parallel programming: **MPI**.
* Numerical Linear Algebraic Library: **BLAS**, **LAPACK**.
* Database management system: **SQLite**, **Postgres**.
* Mastering in **Autocad/Autocad mechanical**, **Inventor**, Solidworks and Unigraphics for mechanical design.
* Mastering in **Hypermesh**, NX, **Ansys** and **Abaqus** for static structural analysis, dynamics analysis, vibration analysis and heat transfer analysis.
* Others: Proficient in Microsoft Office word/excel/power point/outlook.

**FOREIGN LANGUAGE AND SKILLS**

* English: Good at reading, writing, listening and speaking with **TOEIC 845**.
* Japanese: Good at speaking and listening with **JLPT N3**.
* Chinese: **Basic**.
* Presentation and soft skill: **Soft skill Certificate of Achievement** from G & H Management Service.
* Adapting to new surroundings easily.
* Being able to work in teamwork or alone.

**PROFESSIONAL EXPERIENCES**

**05/2016 – Now: TechnoStar Co., Ltd, Tokyo, Japan**

**Software Developer**

Technostar is the leading software company in CAE (Computer Aided Engineering) field in Japan. General Businesses are Development, sales, maintenance and training of Technostar products (CAE software).

**Key accomplishments:**

* GUI programming by **MFC** Visual Studio C++ and **Qt**.
* Numerical Linear Algebraic programing by C++ and **BLAS** – **LAPACK** libraries.
* Parallel programing by using **MPI** library.
* Commit and check out code by **TortoiseSVN** and **Github**.
* **References**:
  + Below link consists of few small Apps which are being programmed by Qt C++.

<https://github.com/NguyenHoaiPhuong/Games-by-Qt-C->

* + Below link consists of the **Linear Algebraic** Solver which is being programmed by **C++.** The purpose of this simple project is to provide a library of mathematical functions to solve Linear Algebraic problems for both dense and sparse matrices, such as matrix decomposition (A = LU, A = LLT, A = LDLT, etc), equation solving AX = B, etc. Parallel programming is applied by using MPI Library.

<https://github.com/NguyenHoaiPhuong/NumericalSolver>

* + **Data Structure and Algorithms** programmed by **Python**.

<https://github.com/NguyenHoaiPhuong/Data-Structure-and-Algorithms-in-Python>

* + **Data Structure and Algorithms** programmed by **C/C++.**

<https://github.com/NguyenHoaiPhuong/Data_Structure_And_Algorithm_In_C>

* + **Web development** “*from zero to hero*” programmed by **Golang**.

<https://github.com/NguyenHoaiPhuong/Go-Web-Dev>

**04/2014 – 04/2016: Robert Bosch Engineering & Business Solutions Ltd, Ho Chi Minh, Vietnam**

**Specialist Mechanical FEM Simulation Engineer in Mechanical Department**

* Products: Gasoline System, Brake System, Starter, Alternator in Automobile Industry.
* Leader of the Gasoline System FEM team.
* Be responsible for all Gasoline System FEM projects in mechanical group.

**06/2012– 04/2014: Robert Bosch Engineering & Business Solutions Ltd, Ho Chi Minh, Vietnam**

**Senior Mechanical FEM Simulation Engineer in Mechanical Department**

* Products: Gasoline System, Brake System, Starter, Alternator in Automobile Industry.
* Prepare FEM analysis reports for automobile products:
* Using **Hypermesh** for meshing model: Repairing/clean up geometry, Hexa and Ctetra Meshing.
* Using **Abaqus** for all FEM simulation, such as Static structural, Dynamics Implicit, Dynamics Explicit, Heat Transfer, Thermal Mechanical Couple, Frequency, Harmonic Response…
* Be able to solve **Linear** and **Non-Linear problems** in FEM (non-linear due to geometry, material and Boundary condition).
* Responsible for writing Simulation reports.
* Do presentation regarding to tasks and technical issues in front of all Mechanical Group members twice a year.
* Discuss with Indian and German customers regarding to receiving tasks: deadline, schedule, technical issues…
* Handle all personal process documents such as timesheet, tracking sheet and Task schedule.
* Responsible for the **Internal Training** Course regarding to FEM simulation in Mechanical Group.
* Leader of the **English club** in Mechanical Group. An enthusiastic partner of **Japanese club** in the company.

**01/2012 – 06/2012: PetroVietnam Engineering Consultancy JSC, Ho Chi Minh, Vietnam**

**Pipeline engineer in Offshore Pipeline Department**

* Preparing technical reports/ drawings related to Offshore Pipeline design as follows:
* Wall Thickness Calculation
* On-Bottom Stability
* Free spans and on-bottom roughness
* Hanger flange and Tie-In spool stress analysis
* End Expansion analysis
* Drawings: Route optimization drawings, Alignment sheets drawings…
* Technical specifications and Material Requisitions
* FEM simulation for Offshore Pipeline components, such as centralizer, swivel flange…
* Coordinating basic design activities related to the company projects: follow up of activities, schedule, check the documentations incoming and outgoing.

**04/2011 – 10/2011: Danieli Far East Company, Chonburi, Thailand**

**Senior Mechanical engineer in Continuous Casting Department**

* Responsible for FEM analysis tasks for continuous casting machines: Using Siemens NX for static structure analysis and model analysis. Responsible for writing Simulation reports.
* Coordinate basic design activities related to Danieli Far East projects: follow up of activities, schedule, check the documentations incoming and outgoing.

**04/2009 – 04/2011: Danieli Vietnam Company, Ho Chi Minh, Vietnam**

**Mechanical engineer in Continuous Casting Department**

* Develop all continuous casting documents regarding to mechanics and fluids systems supplied by Danieli Group such as:
* 2D drawings for Continuous casting: CCM layouts, continuous casting machine assembly drawings, part drawings,…
* 3D models for continuous casting layouts by Autodesk Inventor
* Bill of Materials.
* Manual analysis reports for continuous casting machines, such as stress, deflection vibration, buckling…
* Coordinate basic design activities related to DANIELI projects: follow up of activities, schedule, check the documentations incoming and outgoing.
* Communicate with other departments such as DWU, DMH department and also with civil and electrical departments in order to complete CCM layout.

**03/2006 – 01/2009: Faculty of Mechanical Engineering, Ho Chi Minh City University of Technology**

**Working in the Machine Design Laboratory of Mechatronics Department as a Research student**

* Design the general mechatronics system:
* Making 3D mechanical model for mechanical systems by Solidworks and making 2D drawings by Autocad
* Making electronic circuits by Orcad.
* Programming:
* Using Visual basic to program the interface for connecting the Micro-controller with the computer by COM port.
* Using C/C++ to program the Micro-controller.
* Responsible for writing scientific reports and articles.