

QUAN VO HOANG

LEAD SIMULATION ENGINEER

Thanh Xuan Ward, District 12, Hochiminh city, Ho Chi Minh city, 700000, Viet Nam

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ABOUT ME

- With over a decade of experience in large multinational companies, I have developed essential skills in both technical and management domains, along with a deep understanding of corporate codes of conduct and culture. This expertise enables me to quickly adapt to international work environments, particularly those requiring English as the primary language of communication.
- During my tenure at GES, I successfully developed a prototype vision system for capturing cell phone appearances and established the internal GD&T standards compliant with ASME Y14.5 for the mechanical department.
- At Baker Hughes Vietnam, I've been a lead engineer in Finite Elemeny Analysis team, ensuring workload, quality, and timely delivery of projects, reporting directly to global analysis team in UK.

SKILLS

- 3D CAD SOFTWARE (INVENTOR, SOLIDWORKS, CREO, NX)
- STRUCTURAL ANALYSIS
- ANSYS MECHANICAL
- PROJECT MANAGEMENT
- TEAM LEADERSHIP
- PROGRAMMING (JAVA, MATLAB, PYTHON)
- PROJECT PLANNING
- PRESSURE VESSEL ANALYSIS
- CRITERIA CALCULATION IN OIL AND GAS INDUSTRY
- PLM SOFTWARE (TEAMCENTER)
- TOLERANCE ANALYSIS

LINK

linked profile:
www.linkedin.com/in/quan-vo-a9937baa

LANGUAGES

- ENGLISH
- VIETNAM

PERSONAL DETAILS

Date of birth
15 Oct 1988

Marital status
Married

WORK EXPERIENCE

BAKER HUGHES
Viettel Building
District 10
Aug 2018 - Present

Lead Simulation Engineer

- Running linear elastic or plastic analysis by Ansys Mechanical to verify structural integrity, functionality and serviceability of offshore structures and pressure containment equipment, chemical injection spools, production spools under its operating, lifting, FAT, accidental, temporary conditions i.e. XT frame, FCM frame, test stump, shipping skid... to fulfill requirements given by applicable standards and specifications, i.e. ISO 13628-7, DNVGL 2.7-3, N001, etc.
- Converting analysis result into formal reports which are summited to third party for review.
- Perform fatigue and buckling analysis for subsea connectors and spools to fulfill applicable codes and criteria.
- Estimate budgets and delivery timelines for analysis projects efficiently.
- Collaborate with project teams to develop functional design specifications tailored to project requirements.

GES VN
High Tech Park
District 9
Oct 2017 - Jul 2018

System engineer

- Direct contact with customers to receive product technical requirements.
- Advise and discuss with customer to define details specification, scope and objectives.
- Meeting with customer to present and persuade solution concepts.
- Convey information to internal project team about scopes and requirements.
- Participate in prototype mechanical assembly, electrical wiring, software installation.
- Troubleshoot, calibrate and operate the prototype product.
- Collect operation data to demonstrate proof of concept meeting customer requirements.
- Operating with a high level of autonomy whilst interacting effectively with, and seeking input from team members and other areas of the business including Purchasing, Manufacturing.

RURH UNIVERSITAT BOCHUM
Bochum
Nov 2015 - Oct 2017

Master Program Of Computational Engineering

- Study numerical methods for solving problems in Solid and Fluid Mechanics like FEM, FVM, FDM, XFEM, CFD BEM... both in linear and non-linear.
- Implementing these numerical methods by JAVA, MATLAB, Mathematica.
- Applying simulation commercial software in solving the complex problem such as Ansys, Abaqus, Nastran in NX Siemens.
- My master thesis is “Identification of effective elastic properties of fractured rock using the extended finite element method (XFEM)”, I implemented XFEM code by Java to calculate the effective elastic properties of fractured rock. This calculation based on the so-called homogenization technique in which the effective properties of the material are obtained upon volume averaging on a Representative Volume Element (RVE) with appropriate boundary conditions then based on this input two bounds of elastic Young moduli would be determined. XFEM is numerical method using the uncomforming mesh that means the produced mesh does not need to comply with the crack or the interface in the computed domain, this is its major benefit compared to the traditional FEM.
- Researching CFD’s case study under the guidance of Dr. Joerg Franke regarding to the simulation of the flow field inside the power supply, which is the industrial project in conjunction with Robert Bosch Vietnam. The scope of the case study is to evaluate the distributed flow produced by two cooling fans within the power supply via visualising the flow field by Fluent (Ansys) then the decision about if it is necessary to modify the current design of the power supply would be made. The 3D model was meshed by ICEM CFD – Ansys with total over 9 million tetrahedral elements. The numerical model was opted as standard turbulence k-epsilon model.
- Programming Object-Oriented Modeling and Implementation of Structural Analysis Software by Java then applying this software to calculate the stress and reaction force of the tetraeder in Bottrop (Germany).
- Simulating the crack creation and propagation in Fracture Mechanics by Abaqus and Ansys.

DANIELI VIET NAM
Feb 2012 - Oct 2015

Mechanical Design Engineer

- Design and enhance equipment and machinery units using AutoCAD and Autodesk Inventor, producing detailed engineering drawings for rolling mill projects.
- Develop hydraulic, oil lubrication, and cooling systems tailored for rolling mill machine units through precise calculations and design.
- Design helical spur gear systems, including lubrication methods, and select appropriate bearings and arrangements for gearboxes.
- Compile comprehensive bills of material and finalize essential documentation, including final test reports, painting document lists, and vendor lists for procurement and production.
- Developing optimal design by taking into account the influencing factors such as mechanically feasible and manufacturable, availability of materials, interchangeability, ease of assembly, cost-efficient.
- Strong experience in choosing suitable method of heat treatment and corrosion resistance corresponding to grade steel as well sort of material in order to get required mechanical property and functionality.
- Select and qualify mechanical components, electromechanical components and mechanical sub-assemblies (such as electrical motor, hydraulic, pneumatic cylinder, actuator, robot etc) required for automated machines.
- Expert knowledge in GD&T, creating professional manufacturing and assembly drawings of metal, welded, cast parts following international standards (ISO, ASME).

PICOTRACK VIET NAM
Hochiminh City
Oct 2010 - Jan 2012

Mechanical Engineer

- Specialized in designing semiconductor industry machinery and equipment, including indexers, HPOs, chill plates, developers, coaters, and pumps.
- Created detailed assembly aid drawings to support the production department.
- Developed comprehensive manuals and bills of material for production and customers

EDUCATION

RURH UNIVERSITAT BOCHUM (RUB), GERMANY
Bochum
2018

M.S in Computational Engineering

- Master's Thesis: "Identification of Effective Elastic Properties of Fractured Rock Using the Extended Finite Element Method"
- Thesis Supervisors: Prof. Dr. Klaus Hackl, Prof. Dr. Matthias Baitsch
- GPA 1.8/5 (Good)

HO CHI MINH CITY UNIVERSITY OF INDUSTRY
Ho Chi Minh City
2010

B.A. in Mechanical Engineering

GPA 7.6/10 (Satisfactory)

CERTIFICATE

Aug 2012 — **TOEIC (705 score)**

Dec 2016 — **IELTS ACADEMIC (6.0)**

ACHIEVEMENT

- Nov-2021| Officially promoted to lead simulation
- Jun-2019| Assigned as Focal Point for FEA tasks in Baker Hughes VEC.
- Aug-2018 | Graduating the master program with good grade.
- Jun-2018 | Establishing the GD&T, limits and fits internal standard for GES mechanical department.
- May-2018 | Appointed as technical leader for Alyssa project which building automation vision system after designed two outstanding mechanisms to calibrate the whole system accurately matching customer requirement.
- Jun-2017 | Winning DAAD scholarship.
- Aug-2014 | Acknowleged as one of the best employee in 2014 and rewared for a training course at Italy headquarter