

### PROFESSIONAL SUMMARY

Skilled Software Engineer and Developer with six years of experience in programming utilizing languages such as C++, Fortran, Python, Maple, and MATLAB. Excelling in solving complex mechanical and mathematical problems using numerical methods and developing customized programs for efficient solutions. Demonstrating excellent problem-solving and troubleshooting skills, adept at swiftly adapting to new technologies and methodologies. A team player with strong communication skills, known for a positive attitude that drives collaborative success. Passionate about contributing innovative thinking and expertise to a dynamic software development team.

### TECHNICAL SKILLS

- **Programming Languages:** Python, C++, Fortran, Mathematica
- **Object-Oriented Design:** Proficiency in utilizing UML (Unified Modeling Language)
- Data Structures and Algorithms
- **Version Control Systems:** Git
- Software Testing and Debugging
- **Web Development:** HTML, CSS, PHP
- **Database Management:** SQL
- **Operating Systems:** Windows, Linux, MacOS
- **Numerical Calculation and Mathematical Functions:** Utilizing numerical computation techniques and mathematical functions in software development (NumPy, MATLAB, Mathematica, Maple)

### PROFESSIONAL EXPERIENCE

#### Software developer, freelancer Dresden, Germany

2021-2023

- Increased performance and integration through UML diagram redesign and Python class implementation in C++.
- Enhanced Vibrawise Software by implementing various mechanical structures and employing diverse methods for troubleshooting and finding solutions.
- Enhanced the software's usability by integrating a graphical user interface (GUI) tailored.
- Introduced new features to assist users in avoiding fundamental mistakes.
- Designed algorithms to solve nonlinear problems using training data.
- Implemented a function to verify shells based on shell theory.

#### Software Engineer, Taras Shevchenko National University of Kyiv, Ukraine

2018-2021

- Processed a range of documentation and entered information into databases.
- Provided training, coaching, and supervision to onboard new staff members, ensuring seamless adoption of new software and hardware systems while safeguarding data integrity during the transition from legacy systems.
- Made the applied program for the members
- Contributed to website maintenance and updates by modifying HTML and CSS codes, seamlessly incorporating new information, and removing outdated content to ensure a streamlined and up-to-date web presence.
- Responsible for the enhancements and maintenance of staffs' computers

#### Software Engineer, UkrFreeTrading ,Kharkov, Ukraine

2018-2019

- Monitored market trends and fluctuations, developed programs to automate tasks,
- Performed data extraction and information retrieval from websites to gather valuable insights.
- Assisted management in identifying workflow challenges and devising effective solutions by developing an online cartable and dashboard system.
- Implemented document classification and version control systems to ensure data integrity and prevent misuse. Developed a robust backup system to safeguard critical data.
- Provided valuable assistance to management in the selection and implementation of new hardware and software solutions.

# Hamed Taherzadeh

Software Engineer and Developer

Vancouver, BC

[thz.hamed@gmail.com](mailto:thz.hamed@gmail.com)

[linkedin.com/in/hamed-thz-me/](https://www.linkedin.com/in/hamed-thz-me/)

604-841-1019

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## PROFESSIONAL EXPERIENCE (Continued)

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**Researcher Mechanical Engineering, Problems of NAS of Ukraine, Kharkov** 2014-2017

- Utilized coding in Maple and Mathematica to develop mathematical models specifically for nonlinear geometric shells.
- Leveraged CUDA technology to harness the power of graphics cards for accelerated computational speed.
- Identified the optimal basis function for solving linear and nonlinear vibrations in thin cantilever shells
- Utilized numerical methods to solve nonlinear differential equations.
- Designed software with high accuracy for solving linear vibrations of shells with varying boundary conditions.
- Attained precise and realistic results in the nonlinear section that align with experimental findings.

**Quality Assurance Specialist, Tehran, Iran** 2001-2004

- Improved the effectiveness of quality control procedures, resulting in a 60% increase in production quality over two years and earning the "Supplier of the Year" award from LOLO Holdings for outstanding quality improvements.
- Spearheaded the adoption of Quality Management Systems at Saffir Sepid Co.
- Disseminated acquired insights and expertise among all staff members.
- Created visual instructional materials to facilitate understanding and knowledge-sharing among team members. Designed an optimized test cycle for product testing purposes.

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## EDUCATION

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**Master's Degree in Mechanical Engineering** 2011

*The National Technical University "Kharkiv Polytechnic Institute "Kharkiv, Ukraine*

**Bachelor's Degree in Mechanical Engineering** 2009

*The National Technical University "Kharkiv Polytechnic Institute "Kharkiv, Ukraine*