Ignat Lesiv

PhD student

PERSONAL DETAILS

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WORK EXPERIENCE

Robert Bird Group Oct 2019 - Jun 2021

Graduate Engineer Specialist

- Developed Python tools to automate workflow and use FEA software in the most efficient way
- Analysed prestressed concrete structures with complex load path using basic engineering principles
- Designed large scale steel projects, with a focus on long span structures, high rise and complex construction sequences
- Delivered redevelopment of historical steel building within extremely tight project deadlines with focus on dynamic performance under crowd excitation

Lois Builders (construction) Jan 2018 - Jun 2018

Civil Engineer

- Gained business awareness by communicating with subcontractors.
- Modelled structures in Autodesk Revit software and calculated Bill of Quantities for large projects
- Improved management skills by working with engineering team on a construction site of Zaha Hadid project.

Imperial College London Nov 2018 - Sep 2019

System administrator

- Worked in a team of system administrators to support an online platform for clubs and societies.
- Enhanced professional communication skills by providing technical assistance to students.

Moscow State University of Civil Engineering Jun 2017 - Aug 2017

Laboratory Assistant

- Investigated the behaviour of composite fiber-reinforced plastic bars.
- Performed standard tests for compression and tension of concrete and steel elements
- Improved fundamental knowledge of structural mechanics

EDUCATION

EPFL (École polytechnique fédérale de Lausanne) 2021 - 2025
PhD in Civil and Environmental Engineering

- Laboratory: Earthquake Engineering and Structural Dynamics (EESD)
- Thesis: Digital twins for externally reinforced walls built with demolition waste.

Imperial College London 2018 - 2019
MSc in Advanced Structural Engineering

- Degree Classification: Distinction (Patrick J Dowling prize for the best student in Advanced Strucutral Engineering cluster)
- Thesis: Co-rotational framework for three-dimensional continuum finite elements. Derived and implemented new expressions for solid 3D elements. Clarified misconception regarding symmetry of tangent stiffness matrix and proved surpassing behaviour of new formulation as compared to conventional Green's strain elements. (In the progress of publishing scientific paper)
- Conceptual Design: Used my leadership skills effectively to win the award of best steel design group project at Imperial College London
- Modules including: Structural Analysis, Reinforced Concrete I, Steel Components, Structural Stability, Structural Dynamics, Finite Element Analysis, Design of Bridges, Reinforced Concrete II, Plated Structures, Theory of Shells, Design of Steel Buildings, Nonlinear Structural Analysis.

University of Nicosia 2014 - 2018
BSc in Civil and Environmental Engineering

- GPA: 4.0/4.0 (Best 3rd year and Graduating student in the department of Engineering)
- Dissertation: Numerical modelling and experimental verification of impact between two SDOF systems. Developed the computer program in Java language to simulate collision between structures and modelled the impact using FEM, analysed and verified results based on experimental data.
- Improved teaching and communication skills by tutoring students in undergraduate courses.

SKILLS

Languages	English (fluent), Russian (fluent), Ukrainian (mother tongue)
Software	Rhino/Grasshopper, Strand7, SAP2000, ABAQUS, Bluebeam, Microsoft Office package
Programming	Python, C/C++, Fortran, MATLAB, Java, Bash, Git
Driving License	International license

HOBBIES

Music	Achieved high level of classical guitar skills. Won prestigious contests and performed in various concerts.
Sports	Won regional running competitions. Improved concentration by practicing yoga and meditation.