

# Hnat Lesiv

*Structural Engineer*

## PERSONAL DETAILS

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## WORK EXPERIENCE

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### REDD

Jun 2021 - Present

*Founding Director*

- Developed high-quality concept designs for structural elements at Tottenham Hotspur Stadium within prescribed deadlines
- Delivered structural drawings and calculations to building control regulations and monitored the construction phases while effectively communicating with clients
- Enhanced management skills by interviewing and coordinating structural engineers

### Robert Bird Group

Oct 2019 - Jun 2021

*Graduate Engineer Specialist*

- Modeled structures using parametric and self-developed numerical tools
- Analysed prestressed concrete structures with complex load path using first scientific principles
- Designed large-scale steel projects with a focus on long span structures, high rise and complex construction sequences
- Delivered redevelopment of a historical building within tight project deadlines with focus on dynamic performance under crowd excitation

### Lois Builders (construction)

Jan 2018 - Jun 2018

*Civil Engineer*

- Modeled 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.

### Moscow State University of Civil Engineering

Jun 2017 - Aug 2017

*Laboratory Assistant*

- Investigated behavior 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

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### EPFL

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 Structural 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, Steel Components, Structural Stability, Structural Dynamics, Finite Element Analysis, Design of Bridges, 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

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<i>Languages</i>	English (fluent), Russian (fluent), Ukrainian (mother tongue)
<i>Software</i>	RHINO+GRASSHOPPER, STRAND7, SAP2000, ABAQUS
<i>Programming</i>	C++, Python, Fortran, MATLAB, Bash, Git

## HOBBIES

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