Erik Giesen Loo

Graduate Engineer

Oxford, UK

+44 7917829127

@ erik.giesenloo@gmail.com

https://github.com/erikjloo

Computer -

C++

Python

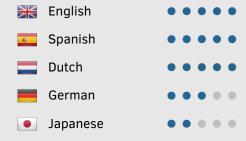
MATLAB

METEX

Godot

Linux

Languages



Memberships





Chi Epsilon Civil Engineering Honor Society

Experience

Graduate Engineer, Roughan & O'Donovan, UK.

Oct 2018 - Present

- Analysed data for the M50 enhancing Motorway Operation Services (eMOS) project
- · Completed geotechnical design reports for the A6 Dungiven-Drumahoe Dualling Scheme
- Performed routine maintenance & inspection of bridges in county Leinster
- · Carried out a category II check of Meenamulligan Bridge in county Donegal

Research Assistant, Bucknell University, USA.

Summer 2015, Summer 2016

- · Researched the lateral torsional buckling stability of steel joists and crane girders
- Performed background studies for a new 2nd-order analysis method in AISC 360-16

Education

Delft University of Technology, *The Netherlands*.

Sep 2016 - Sep 2018

M.Sc. Civil Engineering (Cum Laude), grade: 8.3/10

- · Track: Structural Engineering
- Specialisation: Structural Mechanics
- Thesis: "Weak periodic boundary conditions: Effect on principal stress due to axial load under varying orientations"
- Additional Thesis: "Quantifying the influence of membrane forces, curvature, and imperfections on the nonlinear buckling load of thin-shells"

Bucknell University, USA.

Aug 2012 - May 2016

B.Sc. Civil Engineering (Magna Cum Laude), GPA: 3.8/4.0

 Thesis: "Design of Steel Structures by Advanced 2nd-Order Elastic Analysis - Background Studies"

Certificates

Introduction to Machine Learning, Duke University.

May 2021

- · Logistic Regression, Multilayer Perceptron
- · Convolutional Neural Networks
- Recurrent Neural Networks, Long-Term Short Memory

Algorithms Specialisation, Stanford University.

Apr 2021

- · Divide and Conquer, Sorting and Searching, and Randomized Algorithms
- · Graph Search, Shortest Paths, and Data Structures
- Greedy Algorithms, Minimum Spanning Trees, and Dynamic Programming
- · Shortest Paths Revisited, NP-Complete Problems and What To Do About Them

Accelerated Computer Science Fundamentals, *University of Illinois at Urbana-Champaign*.

Sep 2020

- Object-Oriented Data Structures in C++
- Ordered Data Structures
- · Unordered Data Structures

CPD Professional Engineering, *Technological University Dublin*.

Jun 2019

Programming in JIVE, Dynaflow Research Group.

Jun 2018

Publications

Giesen Loo E, van der Meer FP. Stress-controlled weakly periodic boundary conditions: Axial stress under varying orientations. *Int J Numer Methods Eng.* 2020;1–13. https://doi.org/10.1002/nme.6441

Projects

Fourgotten, *GMTK Game Jam*.

June 2021

- Worked collaboratively with a team to develop a game in 48 hours
- Game homepage: https://sugarcandy.itch.io/fourgotten
- Game sourcecode: https://github.com/Archeologits/GMTK-GJ-21

June 22, 2021

Erik Giesen Loo