

# Zvonko Vugreshek

Architect, MA & Computational Designer

+4915226537228

zvonkovugreshek.com

zvonko.vugreshek@gmail.com

https://www.linkedin.com/in/zvvug

Skopje

Croatian (EU), Macedonian

1993-07-19

zvugreshek@yahoo.com



Sculpting imagination through code and digital design



## Experience

present

### Junior Architect

*ATP Frankfurt Planungs GmbH*

ATP D&R Studio. Implementation of parametric/computational strategies in general architectural tasks.

2017-09 - 2018-03

### Intern Architect

*3XN A/S, Copenhagen, Denmark*

Providing computational design, automation and optimisation services. Making scripts and enhanced global office productivity by 50%.

2017-07

### Computational design team member

*DesignMorphine*

In charge of form-finding and digital fabrication for building a 1:1 pavilion exploring kinetic motion on FabFest 2017 in London, UK. Won 3rd place.

2017-01

### Organiser & Assistant tutor

*DesignMorphine*

Intensive course "Parametric Furniture design with Rhino & Grasshopper v1.0" in Skopje, Macedonia.

2016-12

### Assistant tutor

*University ss. "Cyril & Methodius" Skopje, Faculty of Architecture*

Parametric design & Digital Fabrication workshop "(Re)nest". 1:1 whose outcomes were Waffle structure nests with motion sensor lights.

2016-09

### Computational design team member

*University of Applied Arts, Vienna, Austria*

Spatial installation "Robotic Contouring" in the university atrium

2016-07

### Computational design team member

*DesignMorphine*

Proposal exhibition stand for ETEM & Elval Colour for the BAU 2017 in Munich. Won second place.



## Education

2012 - 2017

### Ss. Cyril and Methodius University Skopje - Master of Architecture

Pioneer in introducing computational design and digital fabrication in depth to his colleagues and teachers.



## Languages

Macedonian & Ex-Yugoslav Languages



Native

English



Fluent

German



Very good



## Skills

Architectural & Urban Design using CAD & BIM

3D modelling and Visualisation

Computational / Parametric Design and optimisation

3D printing / Digital Fabrication / Prototyping



## Software

AutoCAD



Revit (+ Dynamo)



Rhino (+ Grasshopper)



Adobe Suite (Ps + Ai + ID)



3DS Max (+ Vray)



Archicad



Python scripting



Enhancing the Gh/Dynamo workflow



## Publications

2018

Vugreshek, Z., 2018. The Use of Parametric and Computational Design in creating a sustainable city. Skopje: UKIM - Faculty of Architecture

2016

Vugreshek, Z., Petrovski, D., Ovezovski, B. & Bogeska, K., 2016. Kumanovo, city of culture and sustainability. In: Visions for Kumanovo. Skopje: UKIM Skopje, Faculty of Architecture.



## Workshops/Projects/Lectures

2015-07

Parametric & Generative Workshop - Generative Morphologies v.2 - Sofia, Bulgaria

2016-02

Computation & Digital Fabrication Workshop - Computation Matters v.1 - Sofia, Bulgaria

2016-07

Computation & Digital Fabrication Workshop - Intelligent Tectonics v.1 - Sofia, Bulgaria

2016-09

Die Angewandte Architecture Challenge - Robotic Contouring - Vienna, Austria

2017-02

Parametric Detailing Workshop - Correlated intricacies v.1 - Sofia, Bulgaria

2017-07

Parametric BIM Workshop - Informative Archetypes v.1 - Sofia, Bulgaria

2018-02

Human in the Time of Digital - Lecture with Lidia Ratoi - Copenhagen, Denmark

2018-04

Through computational design to intelligent solutions - Lecture at UKIM Skopje - Faculty of Architecture



## Computational Skills

Grasshopper 3D:

Looping and swarming (anemone, boids library)

Generative design (Fox, wasp)

Physics simulation (Kangaroo)

Optimisation (Single/Multi Objective, Structural)

Machine learning techniques (Clustering, Neural nets)

Environmental design/analysis (Ladybug/honeybee, gismo, CFD)

Behaviour Analysis/Simulation

Computational urban planning

Python workflows for GH

Dynamo:

Revit automation and Rhino/Revit interoperability