Fadil Karim
COMPUTATIONAL BIM TECHNICIAN

SUMMARY

Driven CAD Technician with strong technical skills and problem-solving abilities. Expert in Revit, AutoCAD, and Bentley Suites. Highly Experienced in Parametric Modelling and Computational Design with Grasshopper, Dynamo, and Python. These tools increase efficiency by removing the need for manually re-modelling. Deep understanding of BIM software, workflows, and modelling. Creator of a YouTube channel with BIM modelling tutorials in Revit with 7k+ subscribers.

CHANNELS

DenariAnalytics YouTube Channel
Revit and Grasshopper Tutorials
7k+ Subscribers
YouTube.com/@DenariAnalytics

DenariAnalytics Website
Revit & VR Model and Grasshopper Script
Downloads
DenariAnalytics.com

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🏠 Southbank, London

EDUCATION

2021 - 2023
● King's College London
The Psychology and Neuroscience of Mental Health, PGCert

2010 - 2014
● University of Birmingham
Civil Engineering, BEng

2008-2010
● St. Joseph's College
A-Levels - Maths (A), Further Maths (B), Physics (C)

SECTOR EXPERIENCE

RAIL   INFRASTRUCTURE   RESIDENTIAL

BUILDING STRUCTURES   TEMPORARY WORKS

MATERIAL EXPERIENCE

- Steel
- RC Concrete
- PT Concrete
- Timber
- Stone
- Scaffolding

WORK EXPERIENCE

JAN 2024/PRESENT — CONTRACTOR
SENIOR BIM TECHNICIAN at ES Global. 📍 LONDON, UK

Model & Drawing Production - *AutoCAD 3D*
- 3D modeling, coordination, and drawing production of **scaffold** structures for the Paris 2024 Olympic Games.

Computational Modelling Scripts Developed - *Grasshopper & Python for AutoCAD*
- Create distance tables from structure to topography for hundreds of elements.

OCT 2023/DEC 2023 — CONTRACTOR
SENIOR BIM TECHNICIAN at Eckersley O'Callaghan. 📍 LONDON, UK

Model & Drawing Production - *Revit*
- 3D modeling, coordination, and drawing production of **concrete** structures for VIP residential projects.
- Parametric family production.

Computational Modelling Scripts Developed - *Grasshopper for Revit*
- Create, place and schedule hundreds of beams for complex roof structures.
- Create hundreds of named and numbered sheets in seconds for any project.
- Create hundreds of Plan GA views in seconds for any project.

DEC 2022/OCT 2023 — CONTRACTOR
SENIOR BIM TECHNICIAN at Buro Happold. 📍 LONDON, UK

Model & Drawing Production - *Revit*
- 3D modeling, coordination, and drawing production of **RC concrete** & **steel** structures for multiple projects for Saudi Arabia's **Vision 2030**.

Computational Modelling Scripts Developed - *Dynamo for Revit*
- Create and place multiple nodes at connection points for a complex steel frame sliding roof structure then schedule the x, y, z distances from a base point.

APR 2022/DEC 2022 — CONTRACTOR
SENIOR BIM TECHNICIAN at GHD Engineering. 📍 LONDON, UK

Model & Drawing Production - *Revit*
- 3D modeling, coordination, and drawing production of **RC concrete** structures.

Computational Modelling Scripts Developed - *Python*
- Developed Python and PowerBI skills.

APR 2022/DEC 2022 — CONTRACTOR
SENIOR BIM TECHNICIAN at RDG Engineering. 📍 LONDON, UK

Model & Drawing Production - *Revit, OpenBuildings*
- 3D modeling, coordination, and drawing production of **scaffold** structures for various buildings and railway stations.

SOFTWARE SKILLS

3D BIM

Revit **EXPERT**   AutoCAD **EXPERT**   OpenBuildings **EXPERT**   Blender **INTERMEDIATE**

COMPUTATIONAL DESIGN AND CODING

Python **ADVANCED**   Grasshopper **ADVANCED**   Dynamo **ADVANCED**   Linux OS - Debian **ADVANCED**

GRAPHIC DESIGN

Adobe Illustrator **EXPERT**   Adobe Photoshop **ADVANCED**   Adobe InDesign **ADVANCED**

CLOUD SERVICES

Autodesk Construction Cloud   ProjectWise   NVIDIA Omniverse   GitHub

Engineering is a service that is sold by engineering businesses. A good engineer needs to have a strong understanding of business because his incredible new innovation is useless if it is too difficult or time consuming for users to adopt.

Exposure to the business side is distant and limited in engineering consultancies. To get the understanding of business, I invest in companies and technologies. These financial commitments force me to follow their business and engineering moves.

I have learned many things that have influenced my innovations. Unsuccessful investments have led to learning the lessons of the unsuccessful companies.

CURRENT PORTFOLIO

Nvidia - NVDA (NASDAQ)
Portfolio Weight: 85%

Why are they successful?
- *Speed is King* - Being the first to develop high-end GPU chips has led to depenence on Nvidia from the tech market.
- *Dependence Kills* - Market dependence has led to expansion into new, previously untouchable, territories such as Intel's CPU market (planned for 2025).

Bitcoin - BTC
Portfolio Weight: 15%

Why is it successful?
- *Open Source Equals Robust* - Releasing a digital asset transfer tool and releasing its code for all to see sounds like a recipe for disaster. In practice, it forces the developer to make a tool with robust mechanisms because the code is available for all to judge.

BIM STRATEGY

- *3D, Detailed & Parmetric* - Model elements in 3D with as much detail as possible without any change to deliver times. The parametric elements will reduce the need to remodel and the elements will be reused on future projects, similar to SpaceX rockets.
- *Robust yet Unreliant* - Create and use and reuse Grasshopper scripts to reduce delivery times while building in a way so the models can be edited without them because computational specialists are rare.
- *Build to Inspire* - Scale up use of computational scripts company-wide by making them easy to use with minimal input. Tools are built in a way for technicians to want to use them without encouragment.

OCT 2019/JUN 2021   **CONTRACTOR**
SENIOR BIM TECHNICIAN at Robert Bird Group.   ◉ LONDON, UK

Model & Drawing Production - *Revit, OpenBuildings*
- 3D modeling, coordination, and drawing production of **temporary structures** for crane support, **steel** building structures, and **rail** structures.

Computational Modelling Scripts Developed - *Parametric Modelling*
- Created a library of reusable parametric Revit families.

FEB 2019/OCT 2019   **PERMANENT**
SENIOR BIM TECHNICIAN at BG&E.   ◉ LONDON, UK

Model & Drawing Production - *Revit*
- 3D modeling, coordination, and drawing production of **PT concrete** and **steel** building structures.

Computational Modelling Scripts Developed - *Parametric Modelling*
- Learned to use Python, pyRevit and Revit python shell.

JAN 2018/FEB 2019   **PERMANENT**
BIM ENGINEER at Arcadis.   ◉ LONDON, UK

Model & Drawing Production - *OpenBuildings* (AECOsim & Microstation)
- 3D modeling, coordination, and drawing production of **RC concrete** infrastructure for the Thames Tideway Tunnel.
- Taught OpenBuildings (AECOsim & Microstation) and prvided CAD support to senior technicians.

FEB 2016/DEC 2017   **PERMANENT**
BIM TECHNICIAN at AECOM.   ◉ LONDON, UK

Model & Drawing Production - *OpenBuildings* (AECOsim & Microstation)
- Drawing production of **RC concrete** infrastructure for the Thames Tideway Tunnel.
- Taught OpenBuildings and provided CAD support to junior technicians and senior traffic engineers.
- Led and managed conversion of thousands of drawings from AutoCAD to OpenBuildings, including the rebuilding of layers and model referencing as per the client's requirements.

JAN 2022/OCT 2023
denari open source finance toolbox.

Software Features
- Data analytics tools for business.
- Universal tax calculation tools.
- UK corporation tax opimisation for contractors - optimise salary to dividend ratio without an accountant.
- Fully documented - web-based documentation coming soon.

Technical Features
- Built in from scratch in python with pandas, numpy and plotly.
- Easy to download from any computer via the terminal because it is hosted on the python package index (PyPI).
- Install by typing "pip install denari" in a terminal.
- Open source to increase robustness and users.

- Grasshopper is a computational tool that I use as a plugin for Revit to complete tasks faster can be used easily on any project.
- All tools are built to be independant from the BIM model so that the model is unreliant on any one technician and can be safely changed by a technician without computational skills.
- I built the example script below to create hundreds of components from a spreadsheet within seconds, saving hours across the project.
- Download it for free via the following link: denarianalytics.com/grasshopper.

Minimal use of external add-ons to increase compatability and decrease reliance on any one expert

Utilise untracked Revit elements to avoid problems

Prioritise straight wiring and tidy placement to increase readability

Utilise Grasshopper Player to allow junior technicians to run completed scripts without computational experience