Shareef Jasim
Computational Designer and Digital Fabricator
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OBJECTIVE

Dedicated to harnessing state-of-the-art technology in parametric design, programming, and algorithm development to optimize AEC workflows and design execution. Committed to continuous, self-directed learning in emerging technologies to enrich my expertise.

SKILLS

- **Proficient:** Rhino, Grasshopper, C#, XGenerative, EKL, Twinmotion
- **Experienced:** Revit, Dynamo, Python, Photoshop, Indesign, React, Tailwind.
- **Familiar:** 3DExperiance Catia, Django.
- **Languages:** English (Bilingual Proficiency), Arabic (Native Proficiency), Turkish (Intermediate Proficiency)

EXPERIENCE

Computational Designer
02/2023 - Present

Imagine Computation GmbH & Rhenso (a subsidiary) - Frankfurt, Germany (Remote)

- Timber facade for the Venue Building SILT project (Designed by ZJA Architects and fabricated by Hess Timber):
  - Designed a dynamic and integrated process to generate fabrication and assembly data for timber and steel components.
  - Developed optimization processes to maximize the drill hole to edge distance, enhancing timber joints durability.
  - Automated clash detection and devised algorithms to adjust parameters and eliminate geometric conflicts.
  - Leveraged IronPython scripting within Rhino to append geometry outputs with essential manufacturing data, such as CNC coordinate systems and unique object, facilitating seamless data interpretation by CADWORK.
  - Ensured clear client communication, guaranteeing a smooth flow of manufacturing, assembly, and installation data.
- Attribute Management Tool - C# Rhino Plugin project:
  - Developed multiple plugin features employing the MVVM architectural pattern to structure the software, features enabled effortless manipulation of object attributes, significantly enhancing user productivity and software interoperability.
  - Utilized Eto.Forms within the C# .NET framework to create an intuitive UI.
  - Conducted extensive testing and debugging, ensuring robust plugin functionality across various edge cases.
- APE (Adaptive Parts Environment) Rhino and Grasshopper plugin project:
  - Ideated and developed multiple parametric tools through Grasshopper and APE, simplifing design tasks for Rhino users.
  - Assisted in the development of custom Grasshopper components integrating them into the APE plugin using C#.
  - Engineered a binary file parser and geometry conversion algorithm to facilitate seamless geometry transition from Rhino/Grasshopper to MagicaVoxel, extending Grasshopper's capabilities to MagicaVoxel.

Computational Designer
06/2020 - 05/2021

GenX Design and Technology - New Jersey, USA (Remote)

- Facade Detailing workflow project:
  - Co-designed and developed a 3DEXPERIENCE workflow to detail any planar building envelope into organized panels.
  - Leveraged CSV files to integrate Grasshopper and xGenerative, for geometry panelization, categorization, and analysis.
  - Employed Catia UDFs for parametric mullion creation and utilized EKL for precise assignment of mullion UDFs to panel edges producing facade cost analysis, detailing, and LOD 500 fabrication output.
- Local Facade solving algorithm:
  - Developed an EKL algorithm to assess the feasibility of creating a facade panel from any planar surface. This involved analyzing input surface, assigning appropriate mullions to each edge, testing detail orientations and angles, detect clashing with adjacent panels, ensuring thorough design validation.
  - Packaged the algorithm into two applications: a feasibility test tool for rapid facade rationalization, and as part of the above mentioned workflow to address irregular facade panels, integrating geometric results into the overall process.

Architectural Designer
06/2018 - 09/2018

U+A, Dubai, UAE

- Assisted as an intern on the concept design of Al Zafarana Mall project leveraging Revit for BIM modeling and Collaboration.
- Conducted daily architectural inspections on the site of Midtown project By Deyaar focusing on detailed architectural finishing.

Software Developer - Full-Stack Developer
06/2021 - Present

Freelancing - Self employed

- Developed, deployed, and maintained e-commerce, inventory, and automation solutions for businesses like Watches House and Best Garden IQ using Django to develop robust backend logic and React and Tailwind to design adaptive web applications.

EDUCATION

Bachelor of Architecture
09/2016 - 06/2020

Bilkent University, Ankara,Turkey

- With emphasis on computational tools to rationalize designs form generation, analysis, optimization, and design detail.