



RYZIN SAID AP

Design Engineer

Mob: (UAE) 0521431639

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Education

B-Tech Mechanical Engineering

Calicut University

2013-2017

Certifications

AUTOCAD PROFESSIONAL

Autodesk

2017

INVENTOR PROFESSIONAL

Autodesk

2017

REVIT MEP PROFESSIONAL

Autodesk

2017

NX EXPERT

Siemens NX

2018

MEP ENGINEER

STED

2018

MECHANICAL CAD DESIGNER

STED

2018

Languages

English

Malayalam

Tamil

Hindi

About Me

I am a Mechanical & Product Design Engineer with **8+** years of experience delivering innovative solutions. My expertise spans **water & wastewater treatment systems (MBR, MBBR, DAF, containerized/conventional plants, sludge dewatering)**, as well as **MEP, ELV, home automation, and advanced product development**.

With a strong foundation in **CAD/CFD/FEA**, I specialize in taking projects from concept → solution design → 3D modeling → BOM → fabrication → commissioning. Proficient in **Autodesk Inventor, Autodesk CFD, Revit (LOD 400+), MATLAB/Simulink**, and **AFT Fathom**, I design, simulate, and validate complex systems with precision.

Beyond process and plant engineering, I bring expertise in **metal fabrication, modular product design, and automation systems**, bridging mechanical design with real-world manufacturing and execution. My approach is hands-on, detail-driven, and innovation-focused—delivering sustainable, efficient, and high-performance solutions.

Job Experience

Senior Designing and CAD Engineer

Huber Technology Middle East (Mena Water), Sharjah, UAE (Mar 2023 to present)

- Lead design and detailing for industrial water & wastewater treatment plants—including **MBBR, MBR, DAF, conventional, containerized systems, sludge dewatering units, advanced filtration systems, and pump rooms**.
- Prepare accurate manufacturing & installation drawings, BOQs, and fabrication packages using **Autodesk Inventor & AutoCAD**; deliver **LOD 400+ BIM** models & fabrication drawings through automated workflows.
- Conduct **pump sizing, hydraulic balancing, and transient modeling**, supported by **CFD/FEA** simulations to optimize hydraulics and ensure reliable, compliant structural designs.
- Design and validate **piping and filtration systems**, with expertise in international piping codes, material standards, equipment selection, and multiple filtration methods (media, cartridge, UF/RO, membrane).
- Involved in river filtration and **river-cleaning projects**, integrating advanced treatment technologies for sustainable environmental outcomes.
- Coordinate with architects, contractors, and site teams to ensure proper installation practices, compliance with design intent, and smooth project execution.
- Designed and executed **20+** water & wastewater treatment plants, ranging from **100 CMD to 20,000 CMD**, across both municipal and industrial sectors in the Middle East.

Personal Details

Mobile: +971 521431639
Email: ryzinsaid@gmail.com
Passport No: R6159256
DOB: 25-04-1994
Nationality: Indian
Mrg. Status: Married

Software Skill

Core Design & BIM

- Revit (incl. Dynamo)
- Autodesk Inventor
- AutoCAD
- NX (Unigraphics)
- Navisworks
- BIM 360

Simulation & Analysis

- Autodesk CFD
- Autodesk Nastran
- AFT Fathom
- MATLAB/Simulink
- Carrier HAP 4.5

Visualization & Rendering

- KeyShot
- Lumion
- 3ds Max
- Unreal Engine
- Adobe Photoshop
- Adobe Illustrator
- Adobe After Effects

General Tools

- MS Office

Design Engineer

Intechnics LLC, Dubai, UAE (Jan 2019 to Mar 2023)

- Delivered **MEP and ELV** solutions through **BIM** workflows in **Revit**, producing LOD 350–400 models, fabrication drawings, and BOQs for clash-free coordination with architecture and contracting teams.
- Designed and implemented **HVAC, plumbing, fire alarm, low-voltage, home automation, parking management, CCTV, and access control systems**, ensuring compliance with international codes and client requirements.
- Led in-house **R&D** for smart automation products, developing advanced site-specific solutions such as vehicle access terminals, payment stations, queuing systems, and IP-rated enclosures.
- Utilized **Autodesk Revit, AutoCAD, Inventor, Siemens NX, and MATLAB/Simulink** for 3D modeling, system simulations, prototyping, and performance validation.
- Coordinated across fabricators, consultants, and contractors, managing design integration, approvals, and project execution.
- Key Projects: Delivered solutions for military headquarters, nuclear facilities, metro networks, central banks, opera houses, control rooms, museums, and capital city development programs across the Middle East.
- Achievement: Executed **50+** BIM-integrated **MEP** and automation projects, from concept through installation, delivering innovative and reliable engineering solutions.

MEP Engineer

FENBITS ENGINEERING SOLUTION, India (Mar 2017 to Dec 2018)

- Designed and executed **HVAC and plumbing systems** for low-rise residential and commercial buildings, ensuring compliance with local codes and project requirements.
- Performed heat load calculations using HVAC software (**HAP**) and carried out equipment selections.
- Developed detailed plumbing and piping layouts, including water supply, drainage, and pump room designs, with accurate pipe sizing and hydraulic calculations.
- Conducted pump sizing, pressure loss, and filtration calculations to optimize performance and efficiency.
- Prepared technical drawings, BOQs, and layouts using AutoCAD and Revit for accurate design-to-site execution.
- Supervised site installation, testing, and commissioning of HVAC and plumbing systems, coordinating with contractors to ensure proper execution and compliance with design intent.
- Managed submittal process, including preparation and distribution of contract documents, drawings and samples for approval.

► **Skills**

- Water & Wastewater Treatment (MBR, MBBR, DAF, Sludge Dewatering, Filtration Systems)
- HVAC & Plumbing System Design (Heat Load, Pumping, Equipment Selection, Piping Standards)
- ELV & Automation Systems (CCTV, Access Control, Parking Management, Fire Alarm, Home Automation)
- BIM & CAD Tools: Autodesk Revit (LOD 400+), AutoCAD, Autodesk Inventor, Siemens NX
- Simulation & Analysis: Autodesk CFD, ANSYS, AFT Fathom, MATLAB/Simulink (Hydraulics, Transients, Controls)
- 3D Modeling, Prototyping, Fabrication Drawings & BOQ Preparation
- Structural Design & Validation (FEA, Material Selection, Code Compliance)
- Site Execution & Coordination with Architects, Consultants, and Contractors

► **Passions**

- Programming & Automation – developing tools and workflows that streamline engineering processes
- Mechanical Design & Product Development – creating innovative, practical, and future-ready solutions
- Smart & Easy Engineering – simplifying complex problems with efficient, sustainable designs
- Innovative Products – R&D of advanced automation, filtration, and environmental solutions
- Continuous Learning – blending CAD/CFD/FEA expertise with new technologies to deliver value

► **Declaration**

I hereby declare that the details provided in this CV are true to the best of my knowledge. For project references and work samples, please visit: www.ryzinsaid.com