

Richie Chan

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About Me

An experienced Mechanical Designer with 2 years of experience in MEP design for buildings, with a strong background in designing mechanical systems for high-rise residential and entertainment projects. I am skilled in plumbing and drainage design, Revit BIM MEP and AutoCAD 2D drafting. I am eager to further develop my skills and knowledge and transition into a professional engineering role.

Professional Experience

Mar 2020 - May 2021

Assistant Mechanical Engineer - Aurecon

- Managed and delivered 3 concurrent projects (2 residential and 1 entertainment), utilizing exceptional multitasking skills, and being able to work in a fast-paced environment.
- Consistently designed and reviewed plumbing and drainage systems using AutoCAD, meeting all regulations and best practices.
- Using innovative ideas to design a solar hot water system and saved 1300kWh annually.
- Designed MEP systems for modular integrated construction (MiC) method, proven ability to quickly learn and adapt to new knowledge and technology.
- Excelled at technical communication by regularly attending design meetings 2 times a week with clients and presenting MEP designs clearly and concisely.
- Utilized Revit software to transfer 2D designs into 3D models and presented the design concepts to clients.
- Coordinated the completion of tender specifications and drawings within a tight 4 months timeframe, collaborating effectively with cross-functional teams and clients.

July 2019 - Mar 2020

Assistant Building Service Engineer - Hip Hing Construction Company Limited

- Coordinated on-site activities with precision and efficiency, overseeing MEP installations and managing sub-contractors and workers to ensure high-quality project delivery.
- Maintained accurate and detailed documentation of installation progress, inspection results, testing records, and as-built drawing updates, ensuring compliance with all regulations and requirements.

Education

2015-2019

Bachelor of Engineering in Mechanical Engineering

The Hong Kong University of Science and Technology, Hong Kong

Key courses: *Thermodynamics, Fluid Mechanics, Heat Transfer, Electrical Technology*

Skills

Building Service (Plumbing & Drainage, HVAC) | AutoCAD (Autodesk Certificate) | Revit MEP BIM (Autodesk Certificate) | Coordination | Technical Communication | Programming | Excel (VBA)

Projects Summary

Tonkin Street / Fuk Wing Street Residential Building

- Demonstrated leadership skills as a project coordinator, guiding the design team to complete 75% of the tender phase under the supervision of the project manager.
- Excelled at technical communication by attending design meetings with clients 2 times a week and presenting complex HVAC, plumbing & drainage, and fire protection designs clearly and concisely.
- Played a critical role in project success by efficiently managing multiple government and client document submissions within a tight deadline.
- Coordinated the development of a mechanical BIM model by integrating 2D drawings with structural and architectural designs.
- Consistently designed and reviewed plumbing and drainage systems using AutoCAD, meeting all regulations and best practices.
- Coordinated the completion of tender specifications and drawings within a tight four-month timeframe, collaborating effectively with cross-functional teams and clients.
- Successfully coordinated with multiple utility companies to facilitate the rerouting of existing services beneath the building within a tight deadline of two months
- Successfully designed plumbing and drainage systems for Modular Integrated Construction (MiC) units, utilizing flex joints in the design.

128 Waterloo Road Residential Building

- Revised the residential building's plumbing and drainage system and plant rooms according to site conditions while using AutoCAD.
- Solved complex freshwater lead-in connection issues by conducting site visits and coordinating closely with the government's Water Supplies Department in 4 weeks, leveraging strong problem-solving and communication skills.
- Overcame a significant challenge by designing the last manholes connecting to the public manholes, which required building a manhole close to a heritage building and under one of the busiest streets, ultimately securing government approval.

Macau Galaxy Hotel Phase 3

- Successfully designed plumbing and drainage systems for hotel rooms, shopping plaza (w/ F&B), performance hall, plant rooms, open landscape areas and casino areas using AutoCAD, while meeting a tight schedule.
- Demonstrated problem-solving skills by successfully reducing plumbing and drainage pipes to 60%, meeting the client's casino interior requirements.
- Collaborated with a civil drainage engineer to finalize the design of civil and MEP drainage connections in the open landscape area. Ensured compliance with relevant codes of practice for both parties, and completed the design within 2 weeks.