

MARK FORESTER

Phone: +61 (0) 404 831 362 | Email: markforester93@gmail.com | Arncliffe, NSW, 2205
LinkedIn: TBA / Portfolio: <https://forester93.github.io/MarkForesterPortfolio> | GitHub: [/Forester93](#)

Full-stack web developer leveraging background in mechanical engineering to provide unique perspectives on how end-users interact with websites and software platforms. Earned a certificate in Full Stack Web Development from the University of Sydney Coding Boot Camp. Innovative problem-solver who is passionate about developing apps with a focus on mobile-first design and development. Strengths in creativity, teamwork, and building projects from ideation to execution. I show exceptional leadership characteristics in my day-to-day work and when managing teams.

TECHNICAL SKILLS

Languages: JavaScript ES6+, CSS3, HTML5, SQL, NoSQL, Markdown

Applications: GitHub, MongoDB, MySQL

Tools: Express, React, Node, Handlebars, Query, Bootstrap

PROJECTS

Thy Will | <https://github.com/Forester93/thy-will> | [Thy Will Application Link](#)

Summary: A tool to help people draft wills according to the laws of NSW.

- Role: Project Manager
- Tools: NodeJS, ExpressJS, Handlebars, JQuery, MySQL, BootStrap

Job Genie | <https://github.com/Forester93/job-genie> | <https://forester93.github.io/job-genie>

Summary: A website that helps developers look for programming jobs based on a specific location.

- Role: Project Manager
- Tools: HTML, CSS, JavaScript

Manager's Pal | <https://github.com/Forester93/managers-pal> | [Manager's Pal Video Tutorial](#)

Summary: A tool to manage employees, departments and roles in a database.

- Role: Sole author / Back end
- Tools: NodeJS, MySQL

My Team Profile | <https://github.com/Forester93/MyTeamProfile> | [My Team Profile Video Tutorial](#)

Summary: A tool to generate quality an HTML profile page for a development team.

- Role: Sole author / Back end
- Tools: NodeJS, CSS, HTML

README Maker | <https://github.com/Forester93/readme-maker> | [README Maker Video Tutorial](#)

Summary: A tool to generate quality README.md files to make the developers time more efficient by letting the developer focus on actual coding.

- Role: Sole author / Back end
- Tools: NodeJS, MD

E-Comm Server | <https://github.com/Forester93/e-comm-server> | [EComm Server Test Video](#)

Summary: A back-end server for an e-commerce application.

- Role: Back-end Developer
- Tools: NodeJS, Express

Post-It | <https://github.com/Forester93/post-it> | [Post-It Application Link](#)

Summary: A tool to post 'sticky notes', retrieve, edit and delete them from a deployed server.

- Role: Sole author / Full Stack
- Tools: HTML, CSS, NodeJS, ExpressJS

Task-It | <https://github.com/Forester93/Task-It> | <https://forester93.github.io/Task-It>

Summary: A day planner tool that uses Moment JS library to track the hour and the progress of tasks throughout the day.

- Role: Sole author
- Tools: HTML, CSS, JavaScript

Always Sunny | <https://github.com/Forester93/always-sunny> | <https://forester93.github.io/always-sunny>

Summary: A weather dashboard tool that uses local storage to store user's searches.

- Role: Sole Author
- Tools: HTML, CSS, JavaScript

Riddle Me Quiz | <https://github.com/Forester93/riddle-me-quiz> | <https://forester93.github.io/riddle-me-quiz>

Summary: A timed quiz that tests the developers knowledge on JavaScript.

- Role: Sole author
- Tools: HTML, CSS, JavaScript

HangDman | <https://github.com/Forester93/hangdman> | <https://forester93.github.io/hangdman>

Summary: An online version of the word guessing game Hanged-man.

- Role: Sole author
- Tools: HTML, CSS, JavaScript

Gatekeeper Password Generator | <https://github.com/Forester93/gatekeeper-password-generator> | <https://forester93.github.io/gatekeeper-password-generator/>

Summary: Online tool to generate a secure password based on a series of criteria the user has to answer.

- Role: Sole author
- Tools: HTML, CSS, JavaScript

EXPERIENCE

Employment History

HVAC PROJECT ENGINEER/ CONTRACTS ADMINISTRATOR

Dynatech Industries

August 2018 – Present

Key Responsibilities

- Financial handling of the project including choosing, comparing and purchasing from suppliers and subcontractors.
- Negotiating quotes to increase the profit margin for the company.
- Reviewing head contracts.
- Preparing scope of works and subcontract agreements for the subcontractors.
- Preparing breakdowns for subcontractors to aid the assessment of the claiming process and to be in line with the project's breakdown with the clients.
- Raising purchase orders in SimPro financial software.
- Helping the construction manager assess the subcontractor's claims every month by performing at least one site visit per month, preparing a schedule of payables for the month and drafting the progress claim on Payapps.
- Using Payapps online tool to submit claims to the clients and to assess subcontractors' claims/ issue payment schedules.
- Handling and chasing approvals of equipment, preparing procurement schedules in line with the construction programme with detailed cost breakdowns for every level/portion of the job to help with the forecasts.
- Preparing claim/ cost-to-completion forecasts in line with the construction programme.
- Liaising with the design team regarding equipment selections, equipment approvals, design change, etc.
- Drafting and submitting and tracking variations in line with the design change register of changes to WUS.
- Managing correspondence with the client/subcontractors.
- Using Aconex to respond to RFIs, collating and uploading tech data submittals for approvals.
- Using Trello platform as a task management tool to keep track of to-do items and pending tasks.
- Drafting, editing and submitting O&M Manuals for the project.

Key Projects:

- Award-till-handover work on ~\$9.5 Million Commercial Chilled Water HVAC Project
- The current handling of 3 smaller projects (total value ~\$5 Million) contractually and managing project procurement.



HVAC Design and CFD CONSULTANT
AC Goulding, Cheltenham, VIC.
February 2020 – May 2020
Key Responsibilities



- Conduct CFD Simulations for Standards Compliance Verification of Natural and Mechanical Ventilation Methods Performance in Buildings
- Research Business Development Opportunities with Other Contractors

Key Projects:

- Air Quality and Air Renewal Study upon Installing Car Garage Jet Fans
- Plume Dispersion Analysis of Building Air Exhaust to Investigate its effect on surrounding buildings
- CFD Analysis of Car Garage CO Level for Air Quality Analysis
- Livestock Warehouse Ventilation Study
- CFD Analysis of Enclosed Warehouse Ventilation

LEAD DESIGN A& SIMULATION ENGINEER- District Projects
MHD Engineering, Business Bay- Dubai.
February 2016- August 2018.
Key Responsibilities



- Supervision, coordination and modification of engineering design and performing design iterations to maximize profit margins of mechanical contractors without jeopardising the design intent of the projects.
- Liaising with consultants on design matters.
- Performing integrated design proof analyses of the mechanical systems as a whole.

Key Achievements:

- Supervised, coordinated and modified the design of a 60 kilo-tonnes refrigeration capacity district cooling plant.
- Performed several simulations: stress analysis, thermal distribution CFD, air quality analyses, hydraulic modelling and surge (water hammer analyses) for smaller projects

CFD SIMULATION ENGINEER/INTERN
NGLTech Sdn BHD, KL Malaysia.
Sep 2014- May 2015



- Conduct CFD Simulations for Various Fields within the Oil & Gas Industry, including Fire Simulations, H₂S Dissipation, R&D and proof of concept.

Key Projects:

- CFD Multiphase Simulation for Crude Oil Stabilisation System

- CFD Heat Transfer Simulation for Shell and Tube Heat Exchanger
- CFD Liquid Sloshing Study for a Liquid Container
- CFD Fire Dynamics Simulation Flare Radiation Study
- CFD Hydrogen Sulphide Plume Dispersion Study
- R and D Multiphase CFD Design of Cyclonic Slug Catcher
- R and D Multiphase CFD Design of Cyclonic Slug Catcher
- R and D Multiphase CFD Design of Cyclonic Sand Removal Device
- Fluid-Structure Interaction CFD/FEA Storage Tank Buckling Study due to Thermal Stress Induced by Coolant
- CFD Fire Dynamics Simulation LES Flare Tower
- Hydrogen Sulphide Plume Dispersion Study

Awards 36th Science and Engineering Design Exhibition Silver Award for Mechanical Engineering
 PETRONAS University of Technology December 2015

EDUCATION

Certificate, Full Stack Web Development – The University of Sydney
 Sydney, NSW

Bachelor of Mechanical Engineering (HONS) – PETRONAS Institute of Technology
 Malaysia <https://github.com/Forester93/Task-It>

REFERENCES

Technical and character references are available upon request.