

Salvo Dragotta

Digital Engineering Manager, Principal Computational Designer , Full stack developer



Contact Information

📍 383 Kent Street, Sydney NSW 2000

☎ 0450158509

✉ dynamo.user.group@gmail.com



<https://www.linkedin.com/in/salvodragotta/>



<https://github.com/MM-SalvoDragotta/>

Achievements

- **Speaker @ RTC AUS 2016 (Revit Technology Conference)** REVIT & ETABS Interoperability Using Excel, Dynamo and Visual Studio

Portfolio

- <https://mm-salvodragotta.github.io/full-stack-developer-professional-portfolio/>
- <https://www.youtube.com/channel/UCFyEsK9iJrc5gzSyMZu3N9A>
- <https://dynamousergroup.com>

Summary

I am a keen, hard-working BIM Manager who has been working for the past 5 years for engineering consultancies implementing BIM/Revit as the office standard.

Prior to this I worked four years in Sydney's CBD for a major engineering consultancy and two years as a CAD technician in London for a multidisciplinary consultant.

I am an experienced professional with a track record in architecture, engineering, building services, BIM and an in-depth understanding of all areas of construction. I have a passion about BIM & collaboration, and I am an **'outside of the box'** thinker able to produce original and creative solutions.

I am passionate about harnessing the power of software to aid design innovation, and I keenly track the emergence of new technologies.

I am an active member of the **BIM community** (locally and internationally) and a keen implementer of latest technologies.

I am a passionate full-stack developer with a broad and versatile coding skill set. I have a vast array of knowledge in many different front end and back end languages, responsive frameworks, databases and best code practices. I am dedicated to perfecting myself by learning from more seasoned developers and continuously making strides to learn all that I can about development.

Skills

Professional

Autodesk Revit
Civil 3D
DynamoBIM Visual Programming.
Python Programming
C# & .NET Programming
Naviswork;
Solibri Model Viewer
Tekla BIMsight
Archicad

Related

HTML, CSS3 &
JavaScript, jQuery,
Bootstrap,
MongoDB, MySQL,
Node.js, Express.js,
React, .NET, C#, Python,
Git

Personal

Microsoft Office
Microsoft Access
Microsoft project

Artistic Skills, competences, interests

- Piano , music, dancing
- computer graphic
- movies
- travelling
- soccer, swimming

Full Stack Projects

- Grocery Delivery App

<https://store-back-end-deployed.herokuapp.com/>
<https://github.com/MM-SalvoDragotta/grocery-delivery-application>

- **Summary** This project is for an online department store customer and admin side. All items are listed on the website, with their quantities and prices. The admin can change stock, prices, delete products, add products and show current promotions. The application runs a **RESTful API** to retrieve or create data from its database. The application is displayed with both front-end and back-end models, with authentication needed for the back-end (admin) side.
- **Role** : Group Project
- **Tools** : **HTML, CSS, JavaScript, Node.js, Express.js, Handlebars.js, MySQL, Sequelize ORM, Heroku.**

- MVC Tech Blog

<https://tech-blog-deployed.herokuapp.com/>
<https://github.com/MM-SalvoDragotta/mvc-tech-blog>

- **Summary** CMS-style blog site similar to a Wordpress site, where developers can publish their blog posts and comment on other developers' posts as well. The app follows the **MVC paradigm** in its architectural structure, using Handlebars.js as the templating language, Sequelize as the ORM, and the express-session npm package for authentication.
- **Role** : Sole Author
- **Tools** : **Node.js, Express.js, express-session , Handlebars.js, MySQL, Sequelize, Heroku.**

- COVID-19 Tracker

<https://mm-salvodragotta.github.io/Covid-19-Tracker/>
<https://github.com/MM-SalvoDragotta/Covid-19-Tracker/>

- **Summary** Fetch and render Global COVID data from the Covid-19 Rapid API
- **Role** : Group Project
- **Tools** : **HTML, CSS, JavaScript, JQuery, Bulma, GoogleFonts, Chart.js, Font Awesome, COVID-19 Rapid API**

- Weather Dashboard

<https://mm-salvodragotta.github.io/open-weather-dashboard/>
<https://github.com/MM-SalvoDragotta/open-weather-dashboard>

- **Summary** Weather conditions displayed for that city, as well a five day forecast.
- **Role** : Sole Author
- **Tools** : **HTML, CSS, JavaScript, JQuery, Moment.js , Font Awesome, OpenWeather API**

- Work Day Scheduler

<https://mm-salvodragotta.github.io/work-day-scheduler/>
<https://github.com/MM-SalvoDragotta/work-day-scheduler>

- **Summary** A simple calendar application that allows a user to save events for each hour of the day.
- **Role** : Sole Author
- **Tools** : **HTML, CSS, JavaScript, Moment.js**

Education

**Master of Construction
Engineering (Ingegneria Edile)**
University of Palermo
2006

Chartered Engineer
Engineers' Order of Palermo
2007

Full-Stack developer Boot Camp
University of Sydney
2021

Work Experience

Mott MacDonald – Sydney – NSW 2000 - Australia

Digital Engineering Manager

Sydney Metro Southwest

May 2020 – Present

- ≡ Responsible for supporting, developing, and implementing digital engineering processes and practices, to support effective communication, coordination, and information exchange between project stakeholders across the project lifecycle.
- ≡ Lead the Digital Engineering Team, advancing training to support the project teams to engage in Digital Engineering best practices.
- ≡ Implementing DE specifications, standards, procedures, and technology in collaboration with design consultants, subcontractors, and project delivery teams.
- ≡ Provide leadership in the assessment and adoption of the latest technologies and processes, challenging current methods.
- ≡ Automation and Computational Design.
- ≡ Assess business cases supporting the introduction of technology to improve the organisation's efficiency and effectiveness.

Principal Digital Designer

2019 – Present

- ≡ Digital Design & Delivery (Computational Design, BIM, Coding & Scripting),
- ≡ improve and automate project processes
- ≡ provide strategic and technical guidance

Main projects undertaken:

Sydney Metro City & Southwest – Southwest Metro Design Services:

A \$26 million contract to deliver the metro upgrade of the T3 Bankstown Line between Sydenham and Bankstown. METRON T2M, a joint venture between Arcadis Australia Pacific Pty Ltd and Mott MacDonald Australia Pty Ltd, will deliver design services for the stations and the railway corridor between Marrickville and Punchbowl. The metro upgrade means all 11 stations will be fully accessible, including: delivering lifts for the first time at Punchbowl, Wiley Park, Canterbury, Hurlstone Park and Dulwich Hill stations; configuring platforms to be level with train doors, removing the step up into the train which is common at many stations on the line. Sydney Metro is Australia's biggest public transport project, delivering 31 stations and 66 kilometres of new metro rail, revolutionising the way Australia's biggest city travels. Sydney Metro City & Southwest extends the metro rail 30 kilometres from the end of Sydney Metro Northwest at Chatswood under Sydney Harbour, through new CBD stations and southwest to Bankstown.

Computational BIM Manager

2016 – 2019

Birzulis Associates – Rozelle – NSW 2039 - Australia

- ≡ Liaising with architects and other consultants with respect to questions/queries to their documentation and informing the Project Engineer of any changes
- ≡ Maintain/Revise Revit Standards
- ≡ Computational approach to BIM related requirements with Dynamo.
- ≡ Implement/Revise REVIT and BIM procedures and protocols
- ≡ Advising the Leadership team of opportunities and risks associated with REVIT and BIM
- ≡ Coordinate the development of existing Revit content and detail libraries
- ≡ Maintain/Revise Revit Standards
- ≡ Provide ongoing support for Revit applications
- ≡ Present our BIM Capabilities to new/existing clients
- ≡ In-House Revit Training
- ≡ Execute BIM management plans
- ≡ Provide guidelines with regards to LOD and guidance to enable to execute the BIM workflow requirement

Main projects undertaken:

- ≡ **Lindfield Learning Village 100 Eton Rd, Lindfield NSW 2070**

Owner, Committee Member

2016 – Present

Dynamo User Group

- ≡ Dynamo User Group Computational Design Workshop
- ≡ Dynamo Sydney User Group
- ≡ Dynamo Melbourne User Group

Associate | BIM Manager & Senior Drafter

2013 – 2016

MYD Consulting Engineers - Gladesville NSW 2111 - Australia

- ≡ Liaising with architects and other consultants with respect to questions/queries to their documentation and informing the Project Engineer of any changes
- ≡ Maintain/Revise Revit Standards
- ≡ Computational approach to BIM related requirements with Dynamo.
- ≡ Implement/Revise REVIT and BIM procedures and protocols
- ≡ Advising the Leadership team of opportunities and risks associated with REVIT and BIM
- ≡ Coordinate the development of existing Revit content and detail libraries
- ≡ Maintain/Revise Revit Standards
- ≡ Provide ongoing support for Revit applications
- ≡ Present our BIM Capabilities to new/existing clients
- ≡ In-House Revit Training
- ≡ Execute BIM management plans
- ≡ Provide guidelines with regards to LOD and guidance to enable to execute the BIM workflow requirement

Senior Structural Draftsperson. Drafting Manager 2009 – 2013

Robert Bird Group - Sydney NSW 2000 - Australia

- ≡ Facilitate the use of the BEP within the organisation, participating in design review and model coordination sessions, management, monitoring and maintenance of model files. Validating LOD at each project stage. Validating model content during each stage. Implement internal coordination and clash detection procedures as part of the normal modelling process. Model transfer and versioning.
- ≡ Mentoring of junior members of staff to ensure they are constantly meeting the company's standards
- ≡ Discuss with drafting manager of new technologies & Innovations.
- ≡ Revise drafting workflows to improve productivity
- ≡ Assisting in the transfer to Revit Structure as the office standard
- ≡ Responsible for office in-house training and creation and maintenance of office standards
- ≡ Liaising with architects and other consultants with respect to questions/queries to their documentation and informing the Project Engineer of any changes
- ≡ Monitoring workload (current and projected), including issues associated with short notification delivery dates. Keeping draftspersons under my direction informed and up to date with specific project related issues and changes
- ≡ Attending and contributing to drafting meetings

Main projects undertaken:

- ≡ **Sydney International Convention, Exhibition & Entertainment Precinct (SICEEP) : Lead Drafter/Convention Building Model Manager:**
- ≡ **Charles Perkins Centre : Lead Drafter**
- ≡ **Central Park Sydney: Lead Drafter**

CAD Technician/ Structural draftsperson 2007 – 2009

Waterman Engineering & Environmental Consultants - Pickfords Wharf Clink Street - London SE1 9DG - UK

- ≡ Liaising with architects and other consultants with respect to questions/queries to their documentation and informing the Project Engineer of any changes
- ≡ Attend coordination meetings with architects
- ≡ Check structural design with using British Standards
- ≡ Training and mentoring of junior members of staff

Main projects undertaken:

- ≡ **Russia Tower Moscow : Lead Drafter**
- ≡ **Park city Moscow : Lead Drafter**
- ≡ **Budapest Hotel : Lead Drafter**

Co-Founder, Owner & Director

2007 – 2007

D&T Consulting Engineers - Italy

- ≡ Produce models and drawings of building structures for presentation
- ≡ Building structures analysis and design using a finite elements analysis software
- ≡ Ensure compliance with regulations
- ≡ Liaise with clients/contractors/other professionals
- ≡ Contracts Management
- ≡ Liaise with local authorities for submissions and approvals
- ≡ Quantity Surveyor

CAD Technician

2005 – 2006

Dolmen S.r.l. - Italy

- ≡ Produce GA plans and detailed drawings for pre-cast PT units (Panels, columns, floors and beams)
- ≡ provide basic design calculations

1999 – 2005

Architect, Structural drafter, Architectural drafter, Building services drafter, Electrical drafter, CAD/BIM Manager, Town planner, Site Engineer

S. Ziino Associates - Italy

- ≡ Produce GA plans and detailed drawings
- ≡ Site Visits