

Shyan Chien

BIM Applications Engineer - Full-Stack Developer

Taipei, Taiwan

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Key Skills

- Deep understanding of Building Information Modelling (BIM), leading to exploration of different ways to integrate it with other state-of-the-art technologies, particularly web development.
 - History of developing fast prototypes as proof of concepts. Able to bring projects from inception to deployment on the cloud using services such as Heroku, Firebase, Netlify, and Google Cloud Platform.
 - Strong skills in Javascript, React.js, Node.js, and Python and experienced working with databases, mainly MS SQL and MongoDB Atlas (NoSQL).
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Experience

WSP / BIM Applications Engineer

September, 2020 - PRESENT, Taipei, Taiwan

- Responsible for the development of BIM web applications using the MERN (MongoDB, Express, React.js, Node.js) stack to integrate with a Project Management Information System (PMIS) hosted on GCP (Google Cloud Platform).
 - Develop an application allowing 2D and 3D models to be viewed directly on the browser, reducing the time key stakeholders spend searching for the correct version, and removing the need for expensive proprietary software. Backend and frontend Hosted on Google Cloud Platform.
 - Design dashboards using D3.js and React.js to display BIM data extracted from models directly on the browser, and allows comparison of different versions and to export reports.
 - Through the use of a visual programming tool called Dynamo and Python scripting, helped streamline the process of generating CAD drawings and performing quality control.
 - Developed a Digital Twin of the WSP office through the use of VR technology, BIM, and BA (Building Automation) systems. Prepared the BIM model, developed a backend with Node.js to communicate with the BA system, and used C# to interact with Unity. Has been showcased in exhibitions in Taipei, allowing people to experience it.
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Education

National Taiwan University / Masters in Computer Aided Engineering

September 2018 - August 2020, Taipei, Taiwan.

University of Manchester / BEng (Hons), Civil Engineering

September 2011- June 2015, Manchester, UK

Other Projects

Focused my master's research on applications of blockchain in the construction industry, and wrote my thesis "Blockchain-Based Approach for Bill of Quantity Management".

- Combined React.js frontend with smart contracts using Solidity on the Ethereum blockchain (test net).