

Heran Yang

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| GitHub: <https://github.com/heranYang93>
| Portfolio: <https://heranyang93.github.io/>

Full stack web developer with background in design and engineering; Previously worked in engineering and consultancy; Good at preparing design briefs, evaluating clients' aspiration against technical standards and finding innovative and feasible solutions; A life-learner and a self-driving team player; Passionate about creating user-centric web-based service that can change the way we work and connect; Currently learning about ThreeJs, WebGL and graphic-related algorithms and data structures; Wish to further develop my tech skill both in front-end and back-end.

Technical Skills

Languages, fundamentals and infrastructures: JavaScript ES6+; Python; C#; Node.js; React; Git; Heroku

Frontend-related: HTML; CSS; jQuery; Bootstrap; MUI; Bulma; Three.js; WebGL

Backend-related: MySQL, MongoDB, GraphQL, Mongoose; Express.js

Others: Cloudinary, Stripe

Projects

E-Babylon | The University of Manchester Coding Boot Camp

| Deployed page: <https://e-baby-lon.herokuapp.com/>

| Repo: <https://github.com/heranYang93/babylon>

An e-commerce website built with the React, GraphQL and MongoDB. The app allows brand owners to upload their product and users to browse the items. The influencer feature should allow users to create looks by assembling items together.

- Applied React framework (with MUI and MUI treasury) to create the app frontend.
- Created a backend database with GraphQL, developing models, type definitions and resolvers to functionalise queries and mutations.
- Implemented reducer and context to manage frontend data
- Implemented IndexedDB to store persistent data; pulling data from indexedDB to the context to serve data to all components in the frontend
- Designed the frontend interface

Legogram (Leg-it) | The University of Manchester Coding Boot Camp

| Deployed page: <https://legogram.herokuapp.com>

| Repo: <https://github.com/heranYang93/Leg-it>

Legogram is the perfect platform for users to come together and share their passion for the Lego empire. A lot of functionality around providing features to promote collaboration and communication has been purposely implemented to boost the sense of community on the app.

- Maintained a good MVC structure, design and script user profile page, design and engineer the tag feature (sorting different posts by tags);
- Created RESTful API endpoints for features above (using dependencies such as sequelize, MySQL, bcrypt, Cloudinary, express);
- Created views with handlebars, HTML (with Bulma library), CSS

ISS Space Explorer | The University of Manchester Coding Boot Camp

| Deployed page: <https://heranyang93.github.io/go-go-space/>

| Repo: <https://github.com/heranYang93/go-go-space>

The project is a prototype of an education app that helps children to explore the solar system by visualising the track of the International Space Station and introducing planets. The app successfully visualises the data (space station real-time location on the map) from various open-source space-related APIs and provides the users with an immersive reading experience.

- Coordinated the team development process
- Managed repository structure and setting up collaborative workflow
- HTML, CSS scripting (with Bulma, jQuery)
- Js scripting (animation, API data fetching, LeafletJs, Mapbox)
- Incorporating CSS framework (Bulma and jQuery)

Relevant Work Experience

Ramboll UK

Design Engineer

May 2021 - Present

London, SE1

- Led the development of internal digital tools (Python, Rhinoscriptsyntax)
- Developed, with a team size of 4, geometric analysis and generative tools for modularising building components. My module is about discretized surfaces and implementing custom rules to split the surface into constructible modules. Achieved approx. 40% time/internal resourcing reduction.
- Developed a parametric generative tool for facade products that can be used to transfer the design data to manufacturing data. The tool is designed to reflect carbon footprint.
- Developed tools for solar radiation based on local context.
- Client, commercial and admin-related
- Liaising with clients and suppliers, participating in meetings and workshops
- Business case development (building material configuration tool)
- Assisting company internal M&A activities through research and fundamental analysis.

Newcastle University

Research assistant

Aug 2020 to April 2021

Newcastle upon Tyne NE1

- Developed proof-of-concept for biomaterial performance and manufacturing database; Assisted in master selective course teaching activities; Led the prototype designing and manufacturing

Sorba Project bv

Project engineer

Oct 2019 - July 2020

Netherlands

- Delivered structural calculation, manufacturing drawings, factory testing, project curation and managing plan

Technology University of Delft

Honours Program Candidate

Aug 2020 to April 2021

Netherlands

- Review 3D printing methods and find the most suitable geometry for pipe-shape printing
- Review generative methods and algorithms that can be used flexibly for different target geometry
- Developing an agent-based algorithm to populate double-curved surfaces with pipe-shaped absorbers within a limited volume.
- Python programming and developing reusable modules.

Corporate-related and Other Skills (* through certified corporate workshops and courses)

Effective communication* ; Manage effective meetings*; Time management*; Organisational skill*; Feedback Skills*; Embedding Sustainability*; Creating Psychological Safety for Diverse Team *; Adobe Package; Graphic Design; Digital Modelling, numerical FEA analysis; Language: English(bilingual), Mandarin (native), Italian (bi-lingual), Dutch (beginner)

Additional Experience | Achievements | Activities | Community Engagement

Ramboll Digitalisation Prize Nomination - Parametric design tool for precast facade - 2021

MSc graduate with distinction - Delft University of Technology (Global ranking #50 overall, #2 by subject, 2020)

BSc graduate with distinction - Polytechnic University of Milan

Interpreter, Conference facilitator - *Isola che non c'è srl* (Jun 2017 - July 2017); Italian Embassy of Beijing (2012)

Polytechnic University of Milan - Student assistant - (Aug 2016 - Sept 2016)

Architectural Engineer Intern - SD Partners Architectural Design Studio (May 2016 - July 2016); PCNNC China Nuclear Power Engineering co.,ltd (July 2014 - Sept 2014)

Education

University of Manchester, United Kingdom

October 2021 - May 2022

Full-stack Development Bootcamp Certificate

Average: A+

A 24-week intensive program focused on gaining technical programming skills in HTML5, CSS3, JavaScript, jQuery, Bootstrap, Node.js, MySQL, MongoDB, Express, GraphQL, and React.js.

Delft University of Technology, Netherlands

July 2019

Master of Science (MSc) Building Technology

With distinction

Honours program research dissertation: Object-oriented geometry generative algorithm for lightweight, broadband 3D-printing acoustic absorber; Graduation thesis: Topologically Interlocked Glass-brick Structure Study and Application

Polytechnical University of Milan, Italy

July 2017

Bachelor of Science (BSc) Building Architecture

With distinction