CONTACT

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Ciying Wang



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SKILLS

Daylight Simulation

Experiences and knowledge of using Honeybee and Design-Builder to conduct detailed daylight simulation which informs the optimisation of form, orientation and facade designs.

Thermal Modelling

Proficiency in thermal modelling using Grasshopper Ladybug and DesignBuilder. Understanding of heat transfer processes, airtightness, thermal transmittance of different materials, internal gains and thermal mass. Experiences of designing for the balance of energy loads and daylight provision.

Facade Engineering

Experience of designing a dynamic facade system which optimises the balance between daylight provision and heat loss. Knowledge of optimising glazing ratios and aperture geometries, and conducting CFD analysis to reduce wind tunnel effects. Understanding of the aesthetics and psychological impact of materials and designs.

Building Service Engineering

Research of control strategies of fan coil units and energy optimisation of air source heat pumps. Experience of examining an existing CAV system and re-designing ductwork. Experience of designing control strategies which optimize natural ventilation, maintain ideal indoor air quality while minimising energy consumption of active systems.

Passive Designs

Experience of incorporating double-roof systems for cross ventilation for emergency shelters. Experience of comprehensively incorporating passive design strategies such as orientation and mass optimisation, daylight maximisation, ventilation control and material selection into design projects, while understanding the trade-offs and implications of them.

Life Cycle and Sustainability Assessments

Understanding of key concepts of life cycle assessments by attending the OneClick LCA summer school. Knowledge of life cycle stages, EPDs, sources of embodied carbon and CEN/TC 350. Experience of using Dynamo to conduct a LCA for a project in Horningsea during a summer internship. Experience of incorporating sustainability frameworks including BREEAM, LEED and WELL into design projects.

Research, Report and Presentation

Interest in a variety of research topics regarding sustainability, planning policies, big data, circular economy, climate resilience, digital twins, performance gaps, digital workflow, etc. Experience of extensively researching for design projects and meticulously reporting on findings. Experience of drafting planning reports for a mix-use scheme at 23-27 Victoria Road, Romford. Ability to use visual tools and present ideas in an engaging way.

Relevant Projects

- Occupancy-based control strategies of hospital ward
- Examination of conventional plant control strategies
- Building service system evaluation and development
- Rethinking shelters for NW Syria and beyond, 2022
- Highgate Building Gallery, 2021
- Planning permit application document for a mix-use scheme at 23-27 Victoria Road, Romford

CIYING WANG

Engineering & Architectural Design (MEng) Student

I am a fourth-year student at UCL who is passionate about contributing to a more sustainable built environment. I enjoy diving deep into different research topics and deliver designs which solve problems creatively and methodically. The programme I am attending at the Bartlett School of Architecture, Engineering and Architectural Design (MEng), is designed in close collaboration with industry leaders to combine the major disciplines of architecture and engineering. Key modules include Machine Learning in Smart Buildings, Introduction to Programming in Architecture, Design Practice, Structural and Foundation Analysis, Environmentally Responsible Building Systems and Urban Physics.

EDUCATION

2019.9-2023.6 Engineering and Architectural Design (MEng)
Bartlett School of Architecture, UCL
- Predicted First

2018.9-2019.6 Undergraduate preparatory certificate
University College London
- A*s in Physics, Maths, Visual studies and Academic English. 87% overall (distinction).

2015.9-2018.6 High School
No.2 High School attached to East China Normal University

CETIFICATES

OneClick LCA Construction Life Cycle Assessment Specialist, 2022
Harvard CS50 Introduction to Computer Science, 2022

EXPERIENCE

O ARCHITECTURE & ENGINEERING

Intern at MHA, London, Jul - Sep 2022 Involved in: 1. CAD detailing of concrete slabs and timber joints; 2. trail pit design, site visit and drawings of the renovation of a Victorian house; 3. calculation to Euro Code of the overturning moment for a 14-storey high building; 4. load path analysis, calculation to BS 6399-2 and PFC wall plate designs for a timber truss roof; 5. Scheme structural design for the extension& renovation of a country house.

Scholar at Shelter Workshop, Norman Foster Foundation, Madrid, Jun 2022 Tasks include: 1. improving the existing shelter design to adapt to the climate and social conditions in NW Syria; 2. attending presentations and speeches and immediately apply what's learnt; 3. the incorporation of porous concrete foundations and adjustable double roof systems to our design; 4. the envision of the place-making of future communities under the tutoring of Lord Foster.

Intern at <u>HANLIAN DESIGN</u>, Shanghai, Jun-Aug 2020 Tasks include: communicating between architects and project managers; CAD drawings of a kindergarten and a school project; the concept design of a new shopping centre in Xuhui District.

LEADERSHIP & COMMUNICATION

Peer Supporter of <u>UCL TRANSACT Programme</u>, 2022–23 Responsible for providing phycological supports for junior UCL students and having 1-to-1 meeting with them weekly.

Welfare and Outreach Officer of <u>UCL Hiking Society</u>, 2022–23 Responsible for reaching out to other universities and clubs and designing tailored events for the club that celebrate its diversity and inclusion. Enrolled in the 'active bystander' programme and ensure the wellbeing of all members.

ITTraining Assistant at \underline{UCL} , 2022-23 Responsible for providing technical supports and assisting the teaching of Strata, Excel, R, etc.

University Ambassador of <u>Sunshine Action</u>, 2020–2021 Involved in: the launch of a building project for homeless people in London and Birmingham; researching into legal requirements, planning policies and precedent designs; organizing fund-raising events.

Student representative with <u>CIBSE visiting accreditation panel</u>, October 2020 Representing the programme and obtaining accreditation from CIBSE.

Organizer of World Cleanup Day (China), 2018 Responsible for liaising between different parties and designing a series of art installations for the event to raise attention of the waste issues globally.

O VOLUNTEERING

Volunteer at <u>Sunshine Action</u>, 2020–2022 Responsible for the design of delivery bags and the collaboration with other charities. Involved in multiple events, including food packing and delivery for low-income families in Islington and Tooting.

Volunteer at <u>FeastWithUs</u>, Camden, 2020–2021 Helping with food preparation and delivering lunch boxes to rough sleepers in Camden Town.

Transition mentor at <u>UCL</u>, 2019 Responsible for communicating between students and tutors and responding to the needs of freshers.