

Curriculum Vitae

Mr. WANG Cong

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EDUCATION BACKGROUND

Loyola University Chicago 01/2018-Present
Master of Science, Software Engineering
GPA: 3.83

Syracuse University 01/2015-12/2016
Master of Science, Mechanical Engineering
GPA: 3.53

Jiangsu University of Science and Technology 09/2010-07/2014
Bachelor of Engineering, Building Environment and Equipment Engineering
GPA: 3.12 Ranking: 13/46

PUBLICATION

Air Conditioner System and Health. 2095-2104 (2013) 06-0187-02. *Urban Construction Theory Research*. ISSN 2095-2104

RESEARCH EXPERIENCE

Solar Energy Photovoltaic - Photo-thermal Integrated System 09/2012-06/2013
Responsibilities: Investigator and Organizer

- * Analyzed and designed the performance of crystalline silicon solar cell accumulator and the method of heat collection for crystalline silicon solar collector
- * Completed the analysis and design work for solar photovoltaic – photo-thermal integrated system and made plan to optimize its efficiency
- * Tested the system and improved its disadvantages
- * Wrote the product specification of the physical solar photovoltaic – photo-thermal integrated system, documented its scientificity and advancement

Achievement:

- * Compared with the solar energy technology, this system could be used for the heat and electricity supply for urban residents as well as the dispersed power and heating device. It could also integrate and compose a large-scale solar electric power generating system for the transmission of electricity. With the advantages of high-power density, high power conversion efficiency and non-pollution, it could resolve the crisis of non-renewable energy resource, bringing a bright future for the utilization of solar energy.

WORK EXPERIENCE

1. Delos Labs, Delos Living, LLC 03/2017-08/2017
Responsibilities: Building Environment Research Intern

- * Assisted experienced investigators on research about indoor air quality (IAQ), ventilation, indoor material evaluation and the impact of building environment on human behaviors
- * Performed data analysis and visualization of existing projects for further in-depth review and analysis by other scientists
- * Simulated thermal, moisture, and IAQ performance of buildings
- * Contributed to the development of guidelines, standards, and testing protocol for building IAQ and energy performance
- * Drafted technical report for the other researchers to review
- * Participated in new product development activities and scientific activities, e.g., tool development, product evaluation, manuscript review, research proposals, etc.

Achievement:

- * Generated HVAC system indoor air quality (IAQ) control algorithm against target pollutants for Australian residential building in compliance with ASHRAE and WELL Building Standard
- * Reviewed proposal and provided technical support to building owners of Delos WELL Living Lab, China, with a specialty in mechanical (HVAC) system design
- * Developed a new comprehensive sensor installation guidebook for indoor air quality continuous monitoring,

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based on the literature review of indoor air pollutants' characteristics and the current state of the art sensor technology

- * Generated performance reports for several types of air cleaners and air filters based on lab (chamber) testing results and materials provided by manufacturers

2. China Iron & Steel Research Institute Group Jilin Engineering Technology, Ltd. 06/2013-09/2013

Responsibility: Intern HVAC system Designer

- * Acquired familiarity with building mechanical (HVAC) system design procedures, local building codes
- * Performed the Heating and Cooling load calculation for industrial factories
- * Estimated and calculated heating load for each zone, manifold placement, number of loops determination, radiant floor heating pipework drawing (AutoCAD), the hydraulic calculation for pipe sizing, material cost estimation (House HVAC System Design)
- * Acquainted with the blueprint procedures and mastered the working principles of the blueprint machines
- * Learned to finish the blueprint tasks independently

Achievement:

- * Completed a house radiant floor heating project, that's a house located in Changchun, northeast of China which has totally 400 m² floor area. Heating area is 350 m².
- * Calculated the heating loads based on the environment condition.
- * Drew the distribution pipeline from the primary manifold to each manifold of the loop. For each zone, drew the loops based on the length and space.
- * Performed hydraulic calculation, determined the size of the pipe and got the head it needed. Made sure the pressure from the municipal was enough to overcome the total head.
- * Estimated the total cost of the materials, then wrote the material list for this project

SOCIAL & EXTRACURRICULAR ACTIVITIES

Team leader of the thermo-technical experiment	10/2013
Class professional learning, ICBC (Zhenjiang Branch)	07/2013
<ul style="list-style-type: none">* Visited the refrigerating unit* Found every part of the machine and compared them with drawings* Consulted the staff about the thermal insulation materials	
Team leader of the college soccer match	04/2013
Conductor of college singing chorus competition, coordinating the rhythm of the chorus	06/2012

HONOR & AWARD

LEED AP BD+C	2017
30% of Tuition Fee Deduction in Syracuse University	2015-2016
Third Prize of the Intercollegiate Soccer Match in JUST	2014
Second Prize of the Undergraduate Innovation Project in JUST	2013
First Prize in College Soccer Match in Sunan Zone, Jiangsu Province	2013
Second Prize for Campus Energy Conservation and Emission Reduction Competition, JUST	03/2013
Excellent Prize of Musical Instrument Contest, JUST	03/2013
Second Prize of Musical Instrument Contest, JUST	2012

INTERESTS AND HOBBIES

Sports, especially basketball, soccer and swimming
Classical Music (Gustav Mahler, Anton Bruckner), good at clarinet
Reading (works of modern Chinese scholar writers)
Traveling, visiting museums