



INTRODUCTION

LEED AP (BD+C) since 2020, 4-years experience in building environment industry. Currently a master student in *Building and Architectural Engineering* of Politecnico di Milano.

Familiar with and passionate in *parametric computational design, sustainable building, building performance analysis (thermal, visual), energy efficiency analysis, CFD airflow assessment, data post-process and visualization*.

Fast self-learning skill, high stress resistance.

SKILL + SOFTWARE

Thermal comfort & Energy modeling

- ★★★★★ + IES - Virtual Environment (Apache, ApacheHVAC)
- ★★★★★ + Grasshopper - Honeybee (Energy+, OpenStudio)
- ★★★★★ + TRNsys - SketchUp

Visual comfort & Daylight

- ★★★★★ + IES - Virtual Environment (FlucsDL)
- ★★★★★ + Grasshopper - Honeybee, HB[+] (Radiance, Daysim)

Computational Fluid Dynamics

- ★★★★★ + IES - Virtual Environment (marcoFlo, microFlo)
- ★★★★★ + Grasshopper - Butterfly (OpenFOAM)

Data post-process and visualization

- ★★★★★ + Excel (vlookup/match/index/ifs)
- ★★★★★ + Python (matplotlib, bokeh)
- ★★★★★ + MATLAB (basic equation solution)

Otherwards:

- ★★★★★ + AutoCAD: 6-years experience
- ★★★★★ + Adobe suite (PS, AI, ID)
- ★★★★★ + Climate consultant, LBNL THERM, WINDOW

EXTRACURRICULAR TRAINING

- 07/2021 'Environmental Artificial Intelligencel in Design' by DigitalFutures
- 04/2021 'Introduction to C.S and Programming Using Python' by MITx

EDUCATION

- Since 02/2020 MSc Building and Architectural Engineering (BE track) Politecnico di Milano, Italy (26.7/30, 89/100)
 - + Building Energy Modeling + Lab (29/30): Passive house strategies and energy modeling
 - + Energy Efficient Buildings (30/30): Optimize net Zero-Energy Building
 - + Design Optioneering (30/30): Parametric desgin optimization
 - + Fundamental of Integrated Building Design (30/30): Sustainable building study
 - + Adaptive Facade Studio (28/30): Visual and Thermal comfort evaluation
 - + Building Service Energy Modeling + Lab (in progress): Heat pump, PV and battery cost-benefit analysis
- 09/2011 - 06/2015 BEng Building Environment and Equipment (HVAC track) Guangzhou University, China (3.6/4.0)
 - + Building Indoor Environment / Heat pump / Heating Ventilation and Air Conditioning

PROJECT EXPERIENCE

- 02/2021 - 06/2021 CasAselvino energy efficient optimization as Energy modeler
 - + Massing & passive strategies optimization, Energy & thermal comfort assessment, Data post-processing
- 02/2021 - 06/2021 'Begonia' Responsive Facade in Shenzhen as Team leader, Environmental designer
 - + Parametric design, Visual comfort (daylight) and Thermal comfort (energy) evaluation, Iterative optimization
- 09/2020 - 12/2020 Environment Based Pavilion in Shenzhen as Environmental designer
 - + Outdoor airflow(CFD) analysis, Solar radiation analysis
- 09/2020 - 02/2021 Marcello Primary School Retrofit in Milano as Team leader, Energy modeler
 - + Climate analysis, Envelope (opaque and glazing) improvement, Passive strategies: shadings + natural ventilation
 - + Energy simulation, Thermal loads, Thermal comfort assessment, Data post-processing and visualization
- 08/2014 - 10/2014 Research of Condensation Heat Recovery for Outdoor Environment as Team leader
 - + On-site collection of AC device heat extraction parameter, in-lab experimental verification

WORK EXPERIENCE

- 04/2017 - 01/2020 PT Architecture Design (Shenzhen) Co., Ltd as Building Service Engineer
 - + Assist and coordinate architects and civil engineers from schematic stage
 - + Technical drawings: HVAC end system, MEP service room
 - Project: HaiNan International Exhibition Center, Sino-Japanese Hotel, ShenZhen Mixc mall retrofit
- 03/2015 - 04/2017 WSP (Parsons Brinckerhoff) | Guangzhou Office as Building Service Engineer
 - + Assist and coordinate architects and civil engineers, Building energy modeling, thermal load calculation
 - + Schematic drawings: Central cooling system, Service room
 - Project: HeFei Evergrande Office Center, GuangZhou Infinitus Plaza, GuangZhou Everbright mansion.

胡钊雨

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INTRODUCTION

持有 LEED AP (BD+C) 及助理工程师，4 年多建筑环境范畴工作经验。计划 2022 从米兰理工大学建筑与建造工程专业硕士研究生毕业，研究课题与数据驱动参数化建筑能耗预测相关。

熟悉 参数化计算机设计，可持续建筑，建筑表现分析（热环境与光环境），建筑能效分析，CFD 气流组织模拟，数据后处理与可视化，且对其有浓厚兴趣。

自学能力强，抗高压能力强。

SKILL + SOFTWARE

- 热舒适 & 能耗模拟

★★★★★

★★★★★

★★★★★

+ IES - Virtual Environment (Apache, ApacheHVAC)

+ Grasshopper - Honeybee (Energy+, OpenStudio)

+ TRNsys - SketchUp
- 视觉舒适 & 日照分析

★★★★★

★★★★★

+ IES - Virtual Environment (FlucsDL)

+ Grasshopper - Honeybee, HB[+] (Radiance, Daysim)
- 计算流体力学（气流组织模拟）

★★★★★

★★★★★

+ IES - Virtual Environment (marcoFlo, microFlo)

+ Grasshopper - Butterfly (OpenFOAM)
- 数据后处理 & 可视化

★★★★★

★★★★★

★★★★★

+ Excel (vlookup/match/index/ifs)

+ Python (matplotlib, bokeh)

+ MATLAB (basic equation solution)
- 其他

★★★★★

★★★★★

★★★★★

+ AutoCAD

+ Adobe suite (PS, AI, ID)

+ Climate consultant, LBNL THERM, WINDOW

EXTRACURRICULAR TRAINING

- 07/2021

'设计中的环境智能' by DigitalFutures
- 03/2020

'Introduction to C.S and Programming Using Python' by MITx

EDUCATION

- Since 02/2020

硕士 建筑与建造工程 (Building Engineering track)

米兰理工大学

(26.7/30, 89/100)
- + Energy Efficient Buildings

(30/30): 净零能耗建筑 被动式分析 及 能效优化

+ Building Energy Modeling + Lab

(29/30): 被动式建筑 被动式策略 及 能效模拟

+ Design Optioneering

(30/30): 计算参数化设计 及 优化

+ Fundamental of Integrated Building Design

(30/30): 整体建筑 及 可持续建筑分析

+ Adaptive Facade Studio

(28/30): 自适应动态幕墙的热环境与光环境分析

+ Building Service Energy Modeling + Lab

(进行中): 冷热负荷优化 热泵模拟 太阳能产能及储能模拟
- 09/2011 - 06/2015

学士 建筑环境与设备工程（暖通空调方向）

广州大学

(3.6/4.0)

PROJECT EXPERIENCE

- 02/2021 - 06/2021

CasAselvino 装配式建筑能效分析

as 能耗模拟工程师
- + 墙体热质、遮阳通风优化，空气及地源热交换、太阳能优化，热舒适及能效评估，数据后处理及可视化
- 02/2021 - 06/2021

'海棠式' 自适应幕墙分析优化

as 负责人 + 环境模拟工程师
- + 参数化几何设计，视觉舒适（日照）及热舒适（能耗）评估，设计探索及迭代优化
- 09/2020 - 12/2020

基于室外风环境及太阳辐射优化的参数化亭

as 环境模拟工程师
- + 室外气流组织及太阳辐射模拟及优化
- 09/2020 - 02/2021

米兰 Marcello 小学可持续建筑旧改项目

as 负责人 + 能耗模拟工程师
- + 气象参数分析，幕墙（窗 + 墙）性能提升及保温，被动式策略：遮阳研究及自然通风优化

+ 能耗模拟，热舒适模型评估，冷热负荷计算，数据后处理及可视化
- 08/2014 - 10/2014

室外热环境空调室外机冷凝热回收研究项目

as 负责人
- + 挑战杯校赛三等奖；室外现场调研，实验室热回收实验验证

WORK EXPERIENCE

- 04/2017 - 01/2020

深圳柏涛蓝森国际建筑设计有限公司

as 暖通工程师
- + 涉及方案、初设、施工图阶段，制定暖通方案并配合建筑及结构布置机房管井

+ 计算负荷、风量等并完成计算书，绘制系统、末端、机房等工程图纸，驻场协调

项目：海南国际会展中心二期，长春中日友好酒店，深圳罗湖万象城改造
- 03/2015 - 04/2017

WSP (Parsons Brinckerhoff) 科进（柏诚）| 广州

as 暖通工程师
- + 涉及方案、初设阶段，协助总工完成项目负荷计算，国内外标准研究

+ 绘制初设平面及系统图，方案与建筑单位配合

项目：合肥恒大中心塔楼，广州无限极广场，广州光大大厦