

ZIYI LIU

May 1996, Chinese

+31 (0)639226475

ziyi_liu@hotmail.com

www.linkedin.com/in/liu-ziyi

Schildstraat 7, 2645HD, Delfgauw



EDUCATION

Master of Science, Delft University of Technology, Netherlands 9/2019–8/2021 (Expected)

- MSc Complex Systems Engineering and Management (Energy & Industry) GPA: 8/10 (A)
- An inter-disciplinary training on system engineering, socio-technical interventions, energy market and policy analysis for sustainable development; Minor: Economics and Finance
- Sino-Dutch Scholarship awarded by the Dutch Ministry of Education, Culture and Science

Bachelor of Science in Engineering, Shanghai Jiao Tong University, China 9/2014–6/2019

- B.Sc.Eng. Alternative Energy Science and Engineering, School of Mechanical Engineering
- Study abroad for Life cycle assessment & Energy system analysis at Technical University of Denmark from 8/2017 to 7/2018; Dunedin-Shanghai Sister City Scholarship Programme in 8/2016, New Zealand
- Honours: SJTU Outstanding Graduate (Top 20%), Suzhou Education Scholarship (Top 2%), SJTU Merit Student (Top 5%), SJTU Excellent Student Leader, etc

PROFESSIONAL EXPERIENCES

Shanghai Electric, Research Assistant, Shanghai 11/2018–6/2019

A Chinese multinational power generation and electrical equipment manufacturing group

- Worked for the Digital Power Plant project to realize condition monitoring and fault diagnosis of steam turbines through data mining and knowledge discovery
- Responsible for the development of the data preprocessing algorithm & process to address data redundancy, anomaly detection and data imputation

ENGIE, BD/Analysis Intern, Shanghai 9/2018–2/2019

A French multinational energy and services group leading low-carbon power generation and customer solutions

- Actively tracked market intelligence relevant to solid biomass fuel in China and participated in due diligence of two target M&A firms through desk research and site visit
- Conducted the study on China biomass market from supply sustainability to operation safety, from competitive benchmarking to enabling policies

Shenzhen Institute of Building Research, Research Assistant, Shanghai 7/2018–11/2018

The Shanghai Research&Innovation Center focuses on comprehensive solutions for green and livable cities

- Worked for a national research program cooperated with Berkeley Lab (US) to investigate city-level solutions for energy saving and carbon reduction
- Specifically compared 8 tools & 9 indicator systems, analyzed 50+ policies' attributes, delivered 100+ pages' report and proposed policy recommendations for cities in China

Sweco, Project Student, Copenhagen 6/2018–2/2018

A European architecture and engineering consultancy company for sustainable cities and communities

- Analyzed the performance of various utility plants, distribution grids and domestic installations under different district heating temperature
- Developed an Excel-based model to perform system valuation of district heating systems covering financial, environmental, energy and socio-economic aspects

SELECTED RESEARCH & PROJECTS

Back-up PV System Design for the Data Center in Colorado, US 6/2020–4/2020

Teamwork

- Designed a PV system with a battery bank and simulated the operation with Matlab to guarantee the supply reliability during blackouts and showcase the financial feasibility. Report

Conceptual design of solar parks at parking terrains in Rotterdam 6/2020–4/2020

Teamwork

TU Delft: Design Project

- Conducted technical, institutional and process designs from system requirements to mock-up artefacts, including PV system modelling, DBFM and PPA contract, and tender process for the municipality.

Literature review: cost allocation in Integrated Community Energy Systems	6/2020–4/2020
<i>Individual work</i>	TU Delft: CoSEM Research Challenges
• Reviewed nine regulatory principles and five mainstream methods in large-scale power systems and concluded design implications on the cost allocation in Integrated Community Energy Systems. <i>Report</i>	
Integrating wind farms and electricity storage towards 2030 goal in California.	4/2020–2/2020
<i>Group Leader</i>	TU Delft: Design of Integrated Energy Systems
• Integrated four energy system models to simulate the power market in 2030 scenario, conduct financial evaluation for renewable energy projects and suggest policy interventions. <i>Report</i>	
An in-depth Analysis of Key Design Parameters of the Silicon Solar Cell	2/2017–1/2018
<i>Research Assistant, SJTU Energy Research Institute</i>	Supervisor: Prof. Qingchun Yu
• Utilized PC1D simulation program to optimize the key design parameters of the silicon solar cell and analyzed the carrier transmission mechanism behind the results. <i>Publication</i>	
Optimal Dispatch of Heat and Power Producers in the Day-ahead Market	11/2017–12/2017
<i>Group Leader</i>	Proposed by Ea Energy Analyses , Denmark
• Achieved optimal energy dispatch of various utility plants, i.e. CHP, NG boiler, solar plant and heat storage, with GAMS under day-ahead electricity market to serve the heat load of a large industry. <i>Report</i>	

SKILLS

Technical: Energy Systems Modeling, Data Analysis, Feasibility Study, Life Cycle Assessment
Program: MS Office, Python, L^AT_EX, MATLAB, HTML, GAMS, SimaPro, Photoshop, Premiere
Language: English - IELTS 7.0, Mandarin (Native)

MISCELLANEOUS

Cofounder , SJTU Sustainable Campus Initiative Student Association	3/2018–6/2019
President , SJTU International Communication Student Association (<i>Over 60 members</i>)	5/2016–6/2017
Palliative Care Volunteer, Shanghai Longhua Hospital	9/2015–1/2016
Hobbies: Photography, Travelling, Swimming, Badminton, Singing	

刘子屹

(+31) 639226475

ziyi_liu@hotmail.com

wechat: 18516566522

www.linkedin.com/in/liu-ziyi

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教育经历

荷兰代尔夫特理工大学, 理学硕士, 复杂系统工程与管理 (能源方向)	2019.9–2021.7 (预计)
• 中荷奖学金 (Sino-Dutch Scholarship), €16113/年	
• 研究未来能源系统的市场设计、政策制定和管理咨询, 重点为可再生能源、电力、天然气行业	
上海交通大学, 工学学士, 机械与动力工程学院新能源科学与工程	2014.9–2019.6
• 所获荣誉: 上海交通大学优秀毕业生 (前 20%), 校三好学生, 校优秀团干部, 苏州育才奖学金 (校一等, 前 2%), 第二届大学生头脑奥林匹克创新比赛三等奖等	
丹麦技术大学, 校际交换生, 修读 MSc Sustainable Energy 能源系统分析课程	2017.8–2018.7
新西兰奥塔哥理工学院, 达尼丁-上海友好城市教育奖学金项目	2016.8

实习经历

研究助理, 上海电气电站集团汽轮机厂, 上海	2018.12–2019.6
中国大型综合性装备制造集团, 主导产业聚焦能源装备、工业装备、集成服务	
• “数字化电厂系统设计及实现”课题组成员, 应用数据挖掘开发汽轮机状态监测和故障诊断程序	
• 开发针对汽轮机测点数据的前处理流程和算法, 包括数据去冗余、异常检测和坏点预测替换等	
商业分析实习生, ENGIE 中国, 上海	2018.8–2019.2
法国能源领域跨国集团, 全球财富百强企业; 提供可持续、低碳的综合能源解决方案	
• 在 Global Energy Management (GEM) 部门进行中国生物质成型燃料市场的研究, 进行实地考察、专家访谈、文献阅读等, 形成阶段性调研报告	
• 对全产业链进行可行性分析, 从原料供应的稳定性、工厂运营安全性, 到下游需求、竞争对手、政策环境等, 阐述市场潜力和风险, 辅助投资决策	
研究助理, 深圳市建筑科学研究院上海研创中心, 上海	2018.7–2018.11
国家级高新技术企业, 致力于绿色生态城市建设全过程的技术服务与咨询	
• 参与政府间国际科技创新合作重点专项 (中美) “城市节能和低碳解决方案工具”研究课题, 从国际经验出发探索符合中国低碳城市建设的政策建议	
• 对比研究八款软件工具, 九套指标体系以及分析 50 余项相关政策属性, 提出工具开发的逻辑结构和政策推荐的合理框架, 撰写课题阶段性研究报告 (3 万余字)	
学生课题, Sweco Denmark, 哥本哈根	2018.7–2018.11
欧洲跨国工程咨询公司, 活跃于建筑、能源、基建、电力、环境等领域	
• 定量分析多种热生产技术、输热管道、用户侧装置在传统、低温、超低温三种情景下的性能变化, 基于 Excel 开发区域供热评估工具	
• 从经济、环境、能源、社会经济多方面对系统在不同温度情景下进行比较评估, 辅助制定合理的定价、补贴、税务等经济策略, 促进可持续供热系统转型	

专业技能

能源系统建模, 数据分析, 可行性研究, 生命周期评估, 光伏系统设计

程序软件: MS Office, Python, LATEX, HTML, GAMS, SimaPro, PVsyst, Photoshop, Premiere

语言水平: 雅思 7.0, CET 6 级, 普通话二级甲等

活动经历

联合创始人, 上海交通大学“绿蕉”可持续校园倡议组织 (推广和践行 SDGs)	2018.3–2019.6
Oikos Develop Prize 2018 社会创业竞赛	2018.5
Chr. Hansen 可持续发展案例竞赛 (SDG 12)	2018.4
会长, 上海交通大学国际交流协会(成员 60+, 校星级社团)	2016.5–2017.6
昆山杜克大学国际环境政策项目 (iMEP) 夏令营	2017.8
上海中医药大学附属龙华医院守望临终关怀志愿者	2015.9–2016.1
上海市启音学校 (聋哑教育机构) 志愿助教	2015.4
爱好: 摄影, 游泳, 羽毛球, 旅行博客 http://www.mafengwo.cn/u/memory.html	