**Fan Feng**

The University of Alabama, USA

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| **PROFESSIONAL**  **SUMMARY** | * Strong research experience in the area of building modeling and simulation, data-driven modeling, building controls | | | |
| * Well trained in programming and extensive experience in coding HVAC-related models | | | |
| * Creativity, passionate commitment, and strong skills in engineering | | | |
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| **EDUCATION** | **Ph.D.** | | Aug 2018 – | |
| * **The University of Alabama(UA)** | | | |
| * Major: Mechanical Engineering * GPA: 4.0/4.0 | | | |
| * Advisor: Zheng O’Neill * Project:  (NSF 1760834)Collaborative Research: Adaptive, Multi-Layered Fenestration Elements for Optimum Building Energy Performance and Occupant Comfort   *“My tasks in this project mainly focus on several parts: 1)Developing building and HVAC models for implementing fenestration control strategies using EnergyPlus and Modelica. 2) developing a data-driven control-oriented model. For this task, currently, the following algorithms have been compared with respect to the several metrics(e.g. performance, computational speed): Autoregressive model with Exogenous variables, Neural network, and Xgboost. In addition, feature engineering techniques have been applied to further improve the model performance. 3) Developing an adaptive real-time optimal control strategy using this virtual testbed and control-oriented model. ”* | | | |
|  | **Master of HVAC Engineering** | | Sep, 2015 – Mar, 2018 | |
|  | * **Tongji University** | | | |
|  | * Major: Building Science * GPA:4.49/5.00 | | | |
|  | * Advisor: Peng Xu. I also worked with Zhengwei Li * Projects: Chinese National Science Fund for Young Scholars (Project No. 51508394), Shanghai Pujiang Talent Program (Project No. 15PJ1408100)   *“Parts of these two projects focused on how to reduce the peak electricity load of power grid by adjusting the control strategies of HVAC systems. Several strategies were devised and implemented, and finally, an optimal overall strategy of a multi-building portfolio is developed and validated in a testing bed.”* | | | |
|  | **Bachelor of HVC Engineering** | | Sep 2011 – Jul 2015 | |
|  | * **Tongji University** | | | |
|  | * Major: Heating, Ventilation, and Air-Conditioning(HVAC) GPA:4.47/5.00 | | | |
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| **AWARDS** | * Graduate Council Fellowship in UA | | | 2018 |
|  | * China national scholarship | | | 2013 |
|  | * First prize outstanding scholarship | | | 2013 |
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| **SKILLS** | **Programming Languages** | | |  |
|  | Python(Good), C/C++(Good), Matlab(Good),VBA(Familiar), SQL(Familiar), HTML/CSS/Javascript(Familiar), Modelica(Familiar) | | | |
|  | **Tools/Softwares** | | | |
|  | EnergyPlus(Good), Modelica(familiar), Trnsys(familiar), Dymola(Familiar) | | | |
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| **PUBLICATION** | [1] | Dong B, Prakash V, Feng F, O'Neill Z. A Review of Smart Building Sensing System for Better Indoor Environment Control. Energy and Buildings. 2019 Jun 13. | | |
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|  | [2] | Fan Feng , Yangyang Fu , Jin Hou & Peng Xu (2017): Optimizing the topologies of HVAC water systems in supertall buildings: A pilot study, *Science and Technology for the Built Environment*, DOI: 10.1080/23744731.2017.1393255 | | |
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|  | [3] | Fan Feng, and Zhengwei Li. “A Methodology to Identify Multiple Equipment Coordinated Control with Power Metering System.” *Energy Procedia*, vol. 105, Elsevier, 2017, pp. 2499–505. | | |
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|  | [4] | Fan Feng, et al. “The Status Quo of Operation of HVAC Water-Side Systems in China: A Perspective from BAS Data.” *Energy Procedia*, vol. 143, Elsevier B.V., 2017, pp. 67–72, doi:10.1016/j.egypro.2017.12.649. | | |
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|  | [5] | Yingjun Ruan, et al. “The Role of Occupant Behavior in Low Carbon Oriented Residential Community Planning: A Case Study in Qingdao.” *Energy and Buildings*, vol. 139, Elsevier, 2017, pp. 385–94. | | |
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|  | [6] | Fan Feng, et al. “An Empirical Study of Influencing Factors on Residential Building Energy Consumption in Qingdao City, China.” *Energy Procedia*, vol. 104, Elsevier, 2016, pp. 245–50. | | |
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|  | [7] | Yangyang FU, et al. “Data-Quality Detection and Recovery for Building Energy Management and Control Systems: Case Study on Submetering.” *Science and Technology for the Built Environment*, vol. 22, no. 6, 2016, pp. 798–809, doi:10.1080/23744731.2016.1195658. | | |
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|  | [8] | Tianren Yang, et al. “Towards Low-Carbon Urban Forms: A Comparative Study on Energy Efficiencies of Residential Neighborhoods in Chongming Eco-Island.” *Energy Procedia*, vol. 88, Elsevier B.V., 2016, pp. 321–24, doi:10.1016/j.egypro.2016.06.142. | | |
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|  | [9] | Yuan Li, et al. “Analysis of Factors Influencing the Energy Consumption of Government Office Buildings in Qingdao.” *Energy Procedia*, vol. 104, Elsevier, 2016, pp. 263–68. | | |
|  | [10] | Shunian Qiu, Fan Feng, et al. “Data Mining Based Framework to Identify Rule Based Operation Strategies for Buildings with Power Metering System.” *Building Simulation*, 2018, doi:10.1007/s12273-018-0472-6. | | |

**PROFESSIONAL ORGANIZATION: ASHRAE STUDENT MEMBER**