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| **Weijia Yan** | |  |  | | --- | --- | | 1800 Holleman Dr, College Station, CA 90007 |  | | +1 (213) 284-2420 |  | | weijia\_yan@tamu.edu |  | |

# Education

| 08/2023-present | **Texas A&M University, College Station**  Ph.D. student in Mechanical Engineering, GPA: 3.67/4.0 |
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| 01/2021-01/2023 | **University of Southern California, Los Angeles**  Master of Science in Mechanical Engineering, GPA: 3.59/4.0 |
| 09/2016-  06/2020 | **Huazhong University of Science and Technology (HUST), China**  Bachelor of Engineering in Aircraft Design and Engineering, GPA: 3.48/4.0 |

# Publication

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|  | **Multiphysics modeling of frontal curing-enabled additive manufacturing for carbon fiber/thermoset composites, Computational Materials Science**  Weijia Yan, Ruochen Liu, Caleb Fowler, Shiren Wang, and Jingjing Qiu |
|  | **Hopping Light Vat Photopolymerization for Multiscale Fabrication, Small**  Yang Xu, Huachao Mao, Cenyi Liu, Zhengyu Du, Weijia Yan, Zhuoyuan Yang, Jouni Partanen , and Yong Chen |
|  | **Neuromorphic Computing in Sensory Systems: A Review, Journal of Neuromorphic Intelligence**  Weijia Yan, Jingjing Qiu |

# Research Experience

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| 01/2024-present | **Volumetric 3D printing used for the rapid production of artificial organs**  ◼ Assembled a volumetric printing platform, ensuring precision in mechanical and optical performance for the rapid production of artificial organs.  ◼ Responsible for calibrating the light source of projector, adjusting optical systems, and optimizing the compatibility between different components  ◼ Developed and optimized Matlab slicer code for the project, significantly increasing slicing speed and overall production efficiency.  ◼ Researched and determined the optimal formulation of printing materials to ensure the biocompatibility and mechanical properties required for the artificial organs. |
| 08/2023-01/2024 | **Multiphysics modeling of frontal curing-enabled additive manufacturing for carbon fiber/thermoset composites**  ◼ Simulated frontal curing 3D printing for carbon fiber/epoxy composites using COMSOL.  ◼ Developed different models to explore frontal curing's effects across different configurations in application.  ◼ Analyzed the impact of carbon fiber content on the curing process and parameters including frontal temperature and degree of cure.  ◼ Investigated how continuous and discontinuous carbon fibers influence curing parameters. |
| 01/2022-  12/2022 | **Hopping Light Vat Photopolymerization for Multi-scale Structure Fabrication**  ◼ Build the model of the platform and render it  ◼ Carried out the practical application experiment. Printed eggbeater structure and tested for its hydrophobicity properties.  ◼ Used different 3D printing methods to make the structural parts of the experimental platform  ◼ Made videos showing how the platform works |
| 12/2019-  05/2020 | **Graduation project: Effect of Cr on microstructure and oxidation behavior of Mo-Ti-Si-B alloys, School of Aerospace Engineering, HUST**  ◼ Prepared two groups of alloys by arc-melting  ◼ Analyzed the microstructure of these two alloys using a scanning electron microscope and energy-dispersive spectroscopy  ◼ Carried out Oxidation tests in the air at 800 ℃ for up to 24 hours and revealed the oxidation law of these two alloys from oxidation kinetic curves |
| 10/2019-  01/2020 | **Integrated indoor UAV flight control based on model design, Aircraft Innovative Design Competition, School of Aerospace Engineering, HUST**  ◼ Conducted the debugging and equipment assembly of the UAV  ◼ Built the Established multi-rotor control model and carried out the track simulation  ◼ Carried out in-loop simulation of the processor  ◼ Dealt with position control and attitude adjustment |

# Awards & Honors

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|  | Continuing Student Fellowship 2024  Outstanding Graduate 2020  Second Prize in the Aircraft Innovative Design Competition, HUST 2019  People's Arts Scholarship, HUST 2017 & 2018 & 2019  Outstanding Student Leader, HUST 2018  Freshman Scholarship, HUST 2017 |

# Teaching and Leadership Experience

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| 08/2023-12/2023 | **Graduate Assistant of Teaching**  ◼Provided support to students through office hours and email correspondence, addressing their questions and concerns.  ◼Assisted professors with grading exams and created instructional materials and samples for classroom presentations, enhancing learning experiences. |
| 09/2017-  11/2018 | **Art and Cultural Affairs Chair, Student Council, HUST**  ◼ Responsible for organizing the welcome party for freshmen for two years, and participated in the preparation and operation of the party as the director  ◼ Assisted other departments of the student union in hosting and preparing for college activities |

# Skills

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|  | C++, Python  Matlab, Solidworks, AutoCAD, ANSYS Fluent, Arduino, Comsol, Keyshot, Blender |