



SANTA CLARA UNIVERSITY

Funded Ph.D. and Master's Openings

About Lab. Dr. Jun Wang is an Assistant Professor in the Department of Mechanical Engineering at the Santa Clara University (SCU). He leads SCU's GIFTED (Geometric Informatics For Technology, Engineering, and Design) lab. The GIFTED lab aims to push the frontier of research in design and manufacturing by leveraging advanced techniques in *geometric modeling, machine learning, and advanced manufacturing*. Specifically, the lab focuses on overcoming scientific barriers in achieving Data-Driven Design/Simulation/Manufacturing (Inverse Design & Generative Design), Physics-Driven Design, and Design for Additive Manufacturing. The research objective is to leverage Artificial Intelligence, Big Data, and Cloud-Computing power to generate diverse but performance-equivalent designs in short time scales, given functionality and manufacturability. For more information, please see Dr. Wang's website: <https://www.scu.edu/engineering/faculty/wang-jun/>.

About Graduate Programs. We are featured by providing **a funded Master's degree program** to talented candidates besides the Ph.D. program in Mechanical Engineering.

About SCU. Located in the **heart of Silicon Valley**, SCU blends high-tech innovation with a social consciousness grounded in the Jesuit educational tradition. Consistently recognized as **one of the top universities** in the nation, SCU is committed to leaving the world a better place. SCU pursues new technology, encourages creativity, engages with our communities, and shares an entrepreneurial mindset. The goal is to help shape the next generation of leaders and global thinkers. More information can be found at <https://www.scu.edu/>. Students will benefit from **Silicon Valley's thriving job market** after graduation.

Qualifications

The GIFTED lab is recruiting highly motivated Ph.D. and Master students with a research interest in data-driven design and manufacturing.

- Ideal candidates are expected to have a BS or master's (needed for the Ph.D. program) degree in Mechanical Engineering, Computer Science, Industrial Engineering, Mathematics, or closely related fields.
- It is desirable that the candidate has strong programming experience in Python/C++/Matlab and mathematical background in statistics and probability.
- Experience with machine learning platforms (e.g., TensorFlow, PyTorch), geometric modeling/graphics platforms (CGAL, GIBBON), and FEA/CFD platforms (e.g., Abaqus, FEniCS, OpenFOAM) will be highly valued for this position.
- Fluent communication skills (verbal, presentation, and writing in English) are required to interact with technical peers, scholars, and sponsors effectively.

Expected Start Time: Position Available Immediately

Candidates will need to send CVs and Statement of Purpose to Dr. Wang (jwang22@scu.edu).

