Zhou (Joe) Xu

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Education Background

University of California Irvine *(Irvine, California -Graduate in Sep 2019)*
- Mechanical Engineering (B.S.)

University of Southern California *(Los Angeles, California - Graduate in Dec 2022)*
- Mechanical Engineering & Engineering Management (M.S., Dual Degree)

Working Background

Jun 2022-Present, Full-time, Mechanical Engineer / R&D Engineer, Mino Automation USA Inc.
- Worked on mechanical and simulation dedicated to tooling design and automation proposal.
- Worked on-site for robot commissioning, problem resolving, and ECR proposal.
- Worked for engineering team for proposal simulation and manufacturing concept.
- Worked for R&D team for research simulation and concept validation.
- Software development for CATIA and Excel including 3D flowchart and joining generator.
- Planned the equipment layout by using the Optimization Algorithm.

May 2021-Aug 2021, Internship, R&D Engineer, Shanghai Highly Group Co., Ltd. Shanghai, China
- Worked in the lab to test the synchronous three-phase motor and record the data.

Sep 2019-Aug 2020, Full-time, Mechanical Engineer, Shiyan Ruihu Machinery Technology Co., Ltd. Hubei, China
- Worked on mechanical design dedicated to CNC Fixture/trolly/rack/equipment/etc.
- Quality control for the ductile iron casting production with close-loop feedback method.
- Planned the machine shop layout by using the optimization algorithm.

Project Experiences

Nov 2023-Present, Simulation/Proposal, *Tesla*
- Worked on the simulation validation and layout concept for Framing/Final/GA from scratch

Aug 2023-Present, Simulation/Proposal, *Lucid Gravity*
- Worked on the simulation validation and layout concept for UB

Jun 2023- Dec 2023, Simulation/Proposal*, Mecedes-Benz Sprinter*
- Worked on the simulation validation and layout concept for UB/Framing

Fed 2023- Jul 2023, Simulation/Proposal*, Nissan Frontier*
- Worked on the simulation validation and layout concept for Tailgate

Dec 2022-Present, Design/Simulation/Proposal/On-site, *Tesla*
- Worked on the FUB/RUB/Doors/Tailgate from scratch, and on-site support up to now

Jun 2022- Mar 2023, Design/On-site, *Rivian EDV & R1*
- Worked for mechanical design and on-site support

Aug 2021-Dec 2021, Machine Learning, Solving Time-Dependent 2D Heat Equation at USC
- Used Python with Adam optimizer to construct a convolutional neural network with U-Net architecture to predict the temperature field in a conductive material after a certain time.

Dec 2020-Jun 2021, Control Algorithm, *Robot Dynamic Control Lab at USC*
- Constructed a self-balancing and locomotion controller for quadruped robots based on LQR/MPC/PD algorithm.

Major Skills & Industry Experience

- **Major:** Mechanical Design, Process Simulation (PLM), Project Management, FEA, Software Development, Optimization Algorithm, Pneumatic System, Dynamic Control, PLC, NAMMS, OSHA, Robot Safety, etc.
- **Software:** CATIA, Delmia, Solidworks, Tecnomatix PDPS, AutoCAD, Automation Studio, MS Office, MS Project, VBA, .NET, C, Matlab, Python, R, Jira, AB Micrologix 1000, Siemens S7-200, etc.
- **Industry:** Automation, BIW, GA, Casting, Manufacturing, APC, AGV, Fanuc, Kuka, Kawasaki, Yaskawa, etc.