Michael Zhang

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EDUCATION

New York University - Tandon School of Engineering September 2019 - May 2022
Mechanical Engineer| GPA: 3.91/4.00 | Major GPA: 3.91/4.00 *Brooklyn, New York*

Santa Clara University - *Leavey School of Business* September2018 - June 2019 Transferred NYU
Undeclared Business Major | GPA: 3.87/4.00 | Major GPA: 4.00/4.00 *Santa Clara, California*

SKILLS

Design/CAD: SolidWorks, Autodesk Inventor, Fusion360, InDesign, Autodesk Revit, CorelDRAW, Adobe Illustrator
Shop Equipment: Laser Cutter, 3D Printer, Metal Mill, Metal Lathe, Wood Lathe, Hand Tools, Table & Bandsaw, Lab Tools (Microscopy, PCR, Imaging, Cell Culturing)
Programming: React, Python, MATLAB, Arduino

EXPERIENCE

Nodesus Sept 2019–Oct 2021
Mechanical Engineer Technician San Jose, California

- Implemented design changes to a rotary laser to increase efficiency by 10% in the initial product cycle design
- Contracted to Apple and Denali installing biomedical devices and leak test equipment from CAD assemblies
- Elevated productivity by reducing time loss by ~15% at Denali after tuning system response of tube labeling inkjet
- Increased accuracy by 12% of waterproofing testing for all QA devices for iPhone 13 at Apple using controls theory

Gunn Robotics September 2016–August 2018
Business Lead, Mechanic, CAD Team *Palo Alto, California*

- Prototyped gear pickup mechanisms on Autodesk Inventor and ANSYS in 2017's Arizona Regional 1st pace robot
- Fine tuned and turned ~80%(out of 200 parts) of circular machine parts on the lathe to meet assembly deadline
- Designed parts on Adobe Illustrator and CorelDRAW and fabricated parts on laser cutter, 3D printer, and lathes

Stanford Assistant Researcher July 2016–September 2018
Laboratory Intern under Professor Yanmin Yang *Palo Alto, California*

- Competent with PCR, Gel Electrophoresis, Cell Culture, Hemocytometer, DLS and NIR imaging etc
- Studied in depth BDNF's effects on a Huntington Diseased brain, and helped increase neural-culture success rate

PROJECTS

Rogue Aerospace Rocket Nose Cone Design Sept 2020–Current

- Researched rocket cones size and shapes and ran simulations on Matlab and Finite Element Analysis
- Designed and high precision machined/lathed nose cone prototypes and increased rocket height by 10%

Inverted Pendulum on a Cart Sept 2021-Current

- Designed a self-inverting pendulum with only the jerking motion of a cart using MATLAB and SolidWorks
- Calculated equations that models the physical systems response and used Simulink to tune the systems with a PID and LQR controller. CADed parts on solidworks ,researched parts on McMaster Carr, and assembled

Reverse Engineering a Toy Sweeper Car July 2020-Current

- Investigated Product Cycle and manufacturing techniques to completely recreate toy sweeper car
- Disassembled, measured with tolerance theory, CADed on Autodesk Inventor and injection molded Toy Car

NYU Building Renovation July 2019–September 2020

- Awarded Nick Russo award (top ten best buildings from 100+ designs) with LEED Platinum, designing with Revit

Custom Built Electric Bicycle July 2018-Sept 2019

- Designed an electric bicycle from scratch, incorporating cruise control and regenerative braking.
- Researched 40+ part lists with online forums, bike professionals, and working with local bike technicians