Yanming Cai

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EDUCATION

University of Pennsylvania, Philadelphia, PA   **Mar 2023 - Sep 2023**
    Full Stack Developer, Coding Boot Camp

Stony Brook University, Stony Brook, NY   **Aug 2018 - Aug 2019**
    Master of Science, Mechanical Engineering

Stony Brook University, Stony Brook, NY   **Aug 2015 - May 2018**
    Bachelor of Engineering, Mechanical Engineering

Beijing University of Chemical Technology, Beijing, P.R. China   **Aug 2013 – Jun 2015**
    Bachelor of Engineering, Mechanical Engineering

ENGINEERING EXPERIENCE

Research Assistant
Stony Brook University, Stony Brook, NY   **Aug 2020 – May 2023**
    Bone resection surgery using projector navigated system.
    Raman spectroscopy of human tumor, fat, muscle, and dermis.
    Bone regeneration on 3D-printed scaffold implants.
    Teaching Assistant of Design Innovation, MATLAB, Practical Electronics, Manufacturing Processes.

MTRC Lab Assistant
Manufacturing and Technology Resource Consortium Lab,
CEWIT, Stony Brook, NY   **Aug 2020 – May 2023**
    3D modeling, printing using FORM 2 and OBJET 30 printer.
    3D scanning using ARTEC Space scanner and EinScan-SP scanner.
    Laser cutting using Epilog Fusion M2 laser cutter.
    Water jet cutting using GlobalMAX 1508 water jet cutter.

HVAC Engineer
CNY Engineering PC, New York, NY   **Feb 2020 – Aug 2020**
    Complete HVAC plan drawings under NYC building code.
    Complete AI1 and PW1 form.

Mechanical Drafter
SH-Engineering PLLC, Queens, NY   **Sep 2019 – Jan 2020**
    Complete construction CAD drawings under NYC building code.
    Modify Support of Excavation, Foundation and Structure drawings.

Heat Transfer Laboratory Assistant
Air-Forced Convection Baseboard Heating System, Stony Brook, NY   **Aug 2018 - Aug 2019**
    Software used: SolidWorks, Heat and Flow Simulation, 3D modeling and printing.

Occupancy Sensor Project, Stony Brook, NY   **Jan 2017 - May 2017**
    Data collection using Arduino and MATLAB.

LEADERSHIP EXPERIENCE

Department manager, Photography club, Beijing University of Chemical Technology
Team captain, Collage soccer team, Beijing University of Chemical Technology
Event organizer, SARAS summer event, Department of Anesthesiology, Stony Brook University Hospital

TECHNICAL SKILLS

HTML5, CSS3, JavaScript, jQuery, Node.js, MySQL, NoSQL databases, PWA, React
Finite Element Analysis, Computational Fluid Dynamics
Programming Languages: MATLAB, C, C++
Software: Microsoft Office Suites, SolidWorks, LabVIEW, AutoCAD, Arduino, 3D printing, Trace 700, Visual Studio Code
Raman spectrum acquisition and plotting, Lab safety training certificate, CITI Human Research certificate

AWARDS AND INVOLVEMENT

PI TAU SIGMA, National Mechanical Engineering Honor Society
College Scholarship, Beijing University of Chemical Technology   Fall 2013

OTHERS

Engineer in Training