

# Luqi Yan

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## EDUCATION

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**Tufts University**, Medford, MA, USA *September 2013 – May 2015*

*Master of Science in Mechanical Engineering*

**GPA:** 3.9/4.0

**East China University of Science and Technology**, Shanghai, China *September 2009 – June 2013*

*Bachelor of Science in Machine Design, Manufacture and Automation*

**GPA:** 3.3/4.0

- University Scholarship for Superior Academic Performance (recipient, 4 years)
- Social Work Prize for Outstanding School and Social Work Performance (recipient, 3 years)

**University of Science and Technology Beijing**, Beijing, China *September 2011 – February 2012*

*One-semester selective merit-based exchange study program*

## WORK EXPERIENCE

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**Teaching Assistant**, Medford, MA, USA *May 2014 – May 2015*

*Tufts University, Mechanical Engineering, Civil and Environmental Engineering Department,*

- Graded homework and class projects for graduate level Finite Element Analysis I & II courses
- Wrote 20+ ANSYS tutorials for classes and homework
- Provided individual assistance with ANSYS and homework during open office hours twice a week

**Engineer Intern**, Shanghai, China *May 2013 – August 2013*

*Leiyue Heavy Machinery Industry Co.,Ltd, Engineering Department*

- Implemented and developed company website using HTML, CSS, JavaScript, and JSON
- Created appealing visual web interfaces by Photoshop
- Redesigned 2D CAD drawings to fix issues caused by multiple national standards
- Tested and evaluated theoretical designs to improve quality, and analyzed the failure modes
- Generated engineering and manufacturing specifications, participated in equipment and tooling installation and validation
- Provided technical supports to international clients in Europe and Africa

**Quality Engineer Intern**, Shanghai, China *September 2012 – February 2013*

*Philips (China) Investment Co.,Ltd, Quality Department*

- Conducted performance tests and analyzed data to find new solutions to make products more suitable for customers
- Managed and analyzed yearly performance data for domestic appliance products, wrote technical reports on the cost, quality, reliability, and repair rate for the leader of the quality department

## RESEARCH EXPERIENCE

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**Culture Medium Exchange System**, Medford, MA, USA *January 2014 – May 2015*

*Tufts University*

- Originated a liquid handling system that can automatically exchange the culture medium in a petri dish
- Designed and verified 3D drawings and generated 2D CAD drawings using SolidWorks
- Fabricated, assembled and tested the prototype of exchange system
- Designed and optimized the circuit board and control system based on Arduino
- Simulated the fluid flow in the petri dish of various models using COMSOL Multiphysics

- Analyzed simulation results and physical experiments data, manipulated data using STATA and EXCEL
- Publication: Yan L. Design and Optimization of a System for Automated Culture Medium Exchange in a Petri Dish [D]. TUFTS UNIVERSITY, 2015.

**GE Aviation Turbine Disk**, Medford, MA, USA

*March 2014 – May 2014*

*Tufts University*

- Designed the fabrication process and inspection method of GE Aviation Turbine Disk
- Created 2D CAD drawings by AutoCAD for every machining steps
- Generated machining and tooling requirements for every detailed steps
- Estimated the manufacturing costs and provided technical supports for complete manufacturing process

**Engineering Practical Training**, Shanghai, China

*Apr 2012 – June 2012*

*East China University of Science and Technology*

- Developed optimum cutting parameters for various alloy material
- Designed CNC and PLC machining program and provided technical reports
- Performed the startup and debugged the control system of laser welding and cutting

**Freescale Smart Car**, Beijing, China

*September 2011 – January 2012*

*University of Science and Technology Beijing*

- Designed a car with autonomous path identification using photoelectric sensor
- Implemented the embedded control system based on Freescale single-chip microcomputer
- Designed and optimized photoelectric-based mapping algorithm using C
- Designed and optimized the mechanical structure of the car

## **VOLUNTEER EXPERIENCE**

**Volunteer**, Shanghai, China

*September 2009 – April 2012*

- Arranged volunteers' work time and workload, and tidied donated goods and clothes as a Cashier Leader of Love House
- Taught and played with children in Hope Primary School once a week
- Awarded the "Outstanding Volunteer"

**Shanghai World EXPO Volunteer**, Shanghai, China

*May 2010 – June 2010*

- Provided direction and venues information to tourists
- Awarded the "Star of the EXPO Volunteers"

## **SKILLS**

**Programming:** C++, Python, JavaScript, HTML, CSS, Bootstrap, SQL, jQuery, AngularJS, Node.js, Express.js, Assembly Language

**Software:** AutoCAD, SolidWorks, CATIA, ProE, ANSYS, COMSOL, Abaqus, Arduino, MATLAB, Photoshop, Illustrator, iMovie, Final Cut Pro, Premiere

**Language:** Native in Chinese, Fluent in English