# WILBUR LIU

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#### **Education and Skills**

StonyBrook University Bachelor degree of Mechanical Engineering

Expected graduation:05/2016

Major GPA: 3.59/4.00

Overall GPA: 3.43/4.00

Computer Skills: CAD, Solidworks, NX8.5, CNC/WEDM/RP, Word, Excel, Power Point, Photoshop, Premier, Matlab, labview.

Languages: English, and fluent Mandarin Chinese

Main Interested area: Machine design, manufacturing, programming, lab analysis and robotics.

Work Eligibility: Part time and Internship. Available immediately.

#### **Academic Projects and experience**

### **Turntable Speed Control System Design**

Fall 2015

• Used Labview programming a software with a Data Acquisition (DAQ) interface for a turntable speed control system that satisfies given performance and feature specifications.

### **CEAS** mechanical engineering tutor

Spring 2015

Assigned as mechanical engineering tutor to help students solving their difficulties.

## MATLAB programming project assignment

Spring 2015

Used numerical method to do thermal analysis and draw the fluid mechanics boundary layer.

## Wire Electrical Discharge Machining (WEDM)

Spring 2015

• Designed a part to be machined out of a piece of metal using G&M code. Experienced the advantage of WEDM machine.

## Solidworks simulation for a rapid prototyping project

Spring 2015

• Used solidworks to design a 3-D model of great wall and fabricate this model with a 3-D printer.

#### **CNC Machining with G-codes and M-codes**

Spring 2015

Used G-codes and M-codes to design a model of batman symbol on a plexiglass operated by CNC milling machine.

## Instrument design project

Fall 2015

• Designed and built a device that can be used to determine the weight of small laboratory objects. Used labview to measure all the input and output. Steel and hard aluminum were used to construct the project.

#### Simulation and analysis of a cam profile

Fall 2014

- This project is to determine an appropriate cam profile and to simulate its motion for a desired displacement of the roller follower. Designed three different cams, each one with different functions.
- Computer software (DYNACAM) was used to generate appropriate SVAJ curves.
- After the analysis was completed, the cams were designed in Solidworks, and 3D models were created along with videos of the simulation.

## NX8.5 Project -- 3-D Modeling of a Unicycle

Fall 2013

- Designed a 3-D modeling unicycle with its parts such as wheel, seat, and pedal.
- Used NX8.5 in CAD drawing software to create them separately and assemble them.
- Utilized the software to make a video of how the unicycle works by setting up the limiting time with a rotation of wheel and petal.

#### Workshop

• Experienced workshop and learned more machine making skills in mec225, made a dice with aluminum.

# **Interaction Design Robotics and Mechanism Project**

Fall 2012

- Used Arduino programming to design a robot that can do the Gangnam style dance.
- Fabricated with a toy bear and two motor inside it.
- Connected electric circuit with the motor and the Arduino program.
- Attached a small stage to make a better performance.

## Beijing Duyu equipment installation engineering Co.ltd – project observer at an industry; Beijing,

07/2012

• Experienced how the mechanical machine works and learned the CAD drawing from the manager at that industry. Also help the manager to produce part of the equipment.

#### **Honors**

• Pi Tau Sigma mechanical engineering honor society

03/06/2015-present

Dean list

Fall 2012-present

• The National Society Of Collegiate Scholars

06/2012