Jinglong Sun

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EDUCATION

University of Maryland, Baltimore County
Department of Computer Science & Electrical Engineering, Ph.D. in **Computer Science GPA: 3.5 Expected May 2026**

George Washington University **Department GPA : 3.49** **May 2019**
School of Engineering and Applied Science, M.S in **Mechanical and Aerospace Engineering**

Purdue University – West Lafayette, West Lafayette, IN **Aug 2017**
College of Engineering, B.S. in **Mechanical Engineering**, Minor in **Electrical & Computer Engineering, Economics**

INTERNSHIP EXPERIENCE

Taiyuan Heavy Industry CO., LTD, Taiyuan, China **Jul. 2013-Aug.2013**
Section Chief Assistant

- Helped collecting and updating staff records and database.
- Learned the structure of factory and industrial management.

RESEARCH EXPERIENCE

Senior Design Project: Cycloidal Rotor Drone, Purdue University **Oct. 2016-Apr. 2017**

- Be responsible for noise reduction, wing design, and drone frame fabrication.

Course Project: Robotics Project—Sheep Dog, Purdue University **Jan. 2015-May 2015**

- Found solutions, coded the program on both LabView and C programming-based Arduino.
- Assembled the auto-detection robot and be responsible for testing.

Research Project: Development of Distributed Off-grid Wind Energy System for Rural African Communities
Project Advisor: Prof. Jun Chen **Jan. 2016-May 2016**

- Focused on design improvement and fabrication of the wind turbine.
- Improved the design of the spoke and shaft of the wind turbine to make sure the wind turbine is well fit into the cam system and rotates smoothly.
- Designed the foldable solar panel frames, and manufactured the spokes, modes of wind blades solar panel frames, and shaft by using lathe, ban saw, milling machine, and CNC machine with CAD models.
- Completed the final assembling with the other core members.
- Won the 2016 EPA P3 YCOSST Award.

Research Project: A New Type of CNN for Semantic Segmentation **Dec. 2020-2021**

- Help developed a new neural network based on both CNN and MLP for image segmentation

Research Project: A New Real-time Learning Machine That Simulates Biological Neural Networks

- Help developed a functional model of neocortex that is capable of real-time learning. **Dec. 2022-Now**

PUBLICATIONS

- Sun, Jinglong. *Image Segmentation by a New Type of Convolutional Neural Network*. Diss. University of Maryland, Baltimore County, 2021.

MENTORING EXPERIENCE

- Teaching assistant for C++ programming course at University of Maryland, Baltimore County.

AWARDS

- **2016 EPA P3 YCOSST Award,** AIChE Youth Council on Sustainable Science and Technology (YCOSST) **Apr. 2016**
- **Best design reward in course of ME 263,** Purdue University **May 2014**
- **Dean's List & Semester Honors,** Purdue University **Sep. 2012-May 2013**

SKILLS

- Proficient in SolidWorks, C/C++ Programming, MATLAB, TensorFlow, MakerBot, Python, LabVIEW.
- Second foreign language in German.