Zhaoning (Eric) Wang

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EDUCATION:

- **University of Wisconsin-Madison** *Aug 2016 –May 2020*
  Bachelor of Computer Sciences,
  Bachelor of Computer Engineering,

  Related Coursework: Computer Vision, Data Structures, Artificial Intelligence, Computer Graphics, Operating Systems, Algorithms, Signal processing, Computer Architecture and Processor, Digital System Design, Networks, Machine Learning.

EXPERIENCE:

- **University of Wisconsin Deep Learning Group,** Madison, WI *Aug 2020 – Present*
  Research Assistant
  - Work on object detection models (mainly Faster RCNN) recognizing out-of-distribution objects.
  - Conducted experiment and ablation studies regarding the out-of-distribution models.
- **UW-Madison Graphic Lab,** Madison, WI *Oct 2019 –Sep 2020*
  Research Assistant
  - Designed a proximity sensor array for low-distance in-depth imaging and robotics collision detection.
  - Implemented the customized low-level software of the sensors in C++ to achieve higher performance.
  - Developed the plane detection algorithm for the point cloud data from depth sensors.
- **OASIS-startup,** remote *Feb 2020 – Present*
  Co-founder
  - Work on an Augmented Reality app that enable people to connect, create and experience in AR world.
  - Establish the app infrastructure, AR world and model integration and localization.
- **Microsoft Corp.,** Redmond, WA *May – Aug 2019*
  SWE Intern in Business Intelligent team
  - Designed and implemented a library for migrating reporting services in on-prem servers to cloud more conveniently.
  - Worked closely with cross-platform RESTful and SOAP APIs for integrating the cloud application.
  - Created comprehensive unit tests with mock and local SQL servers to exhaustively test the tool.
- **Siasun Robot & Automation Co., Ltd,** Shenyang, China *Jun – Aug 2018*
  Algorithm Research Intern
  - Worked on a from-scratch project on a template matching prototype algorithm for industrial robotics (parallel manipulator).
  - Matched over 1000 templates with angles and positions within 90 ms.

PROJECTS:

- **Eye-Tracking Predictor (Python, PyTorch, TensorFlow)** *Apr 2020*
  - A webcam-based app that uses deep learning to recognize face and eyes, and predict where user is looking.
  - Trained with almost 1,500 subjects and more than a million frames.
- **Web-Based Snap Garbage Classifier (NodeJS)** *Madhack Hackathon, Fall 2019*
  - A cross-platform web app helps user to classify their garbage.
  - Worked as a back-ender for object recognition script, API use and Integration, server implementation and database setup, mostly written in NodeJS.
- **Sleepnea** *Fall 2019*
  - An Android app that records and analysis snores to help users to evaluate their risks of Sleep Apnea and better connect with doctor.
- **HoloLens Application: Pixelized Renderer (C#, Unity, Python)** *Microsoft 2019 Hackathon, July 2019*
  - A Neural Network + HoloLens 2 project that user can take pictures of an item, reconstruct it through a Neural Network into pixelized 3-D Object and project it into real world with HoloLens 2.
- **Image Processing: Picture Low-Polifier (MATLAB)** *Fall 2018*
  - An app that uses image processing to transform pictures into triangular low-poly arts, written in MATLAB.
  - Focused on the image processing algorithm implementation and triangle location generation.

SKILLS:

- Computer Languages: proficient in Python, C/C++/C#, Java, MATLAB, swift. Basic understanding of NodeJS, html, XML, Assembly Language
- Frameworks and Tools: Linux/Unix, Unity, OpenCV, Android, iOS, Deep Learning (scikit-learn, PyTorch, TensorFlow), Cloud Platforms (Azure, Google Cloud), database (MongoDB), Arduino.
- Other Skills: Git, Microsoft HoloLens, Rapid Prototyping (3D modeling and printing).