**EDUCATION**

**Michigan State University | East Lansing, MI**

*Bachelor of Science in Computer Engineering Graduation Date: December 2019*

* GPA: 3.44
* Relevant Coursework: Embedded Smart Sensor Systems, Object-Oriented Software Design,

Computer Architecture, Operating Systems, Compilers

**PUBLICATION**

Oliver Jakob Arndt, Parwesh Rallapalli, Hodger Blume. “Portable implementations for heterogeneous hardware platforms in autonomous driving systems.” *Big Data Analytics for Cyber-Physical Systems: Machine Learning for the Internet of Things,* Elsevier, 2019, 113-143

**CERTIFICATIONS**

**Fundamentals of Deep Learning for Computer Vision** by NVIDIA | NVIDIA Deep Learning Institute | March 19, 2019

* Processed image classification and recognition datasets using NVIDIA DIGITS with TensorFlow

**Machine Learning** by Stanford University | Coursera | June 20, 2017

* Applied logistic regression, SVMs, neural networks for machine vision, database mining, image recognition

**EXPERIENCE**

**ECE Department, MSU College of Engineering**

*Research Assistant* *March 2019 – April 2019*

* Designed a **deep-learning CNN** to classify movie posters by genre with **web-scraping and data pre-processing**
* Assisted graduate student in development of an **LSTM** **AI** for transcribing sign language from video to text

**Institute of Microelectronic Systems, Leibniz Universität Hannover, Germany**

*Research Assistant* *May 2018 – July 2018*

* Researched experimental solutions for automatic **parallelization** and abstraction of **portable C/C++ applications** for **high-performance computing**, **FPGAs**, etc.
* Analyzed and investigated the abstraction, profiling, and portability capabilities of popular frameworks such as **OpenMP, OpenCL, CUDA** for scientific publication and presented findings at institute

**Harman International (Samsung Electronics)**

*Software Engineering Intern* *May 2017 - September 2017*

* Prototyped a **machine learning** algorithm to parse Android system logs
* Created CAN signal commands using RAFT for executing 1000+ vehicle software tests and bug fix validation
* Developed application using **C#** with VMMServer to automate hardware configuration, saving test time

**CSE Department, MSU College of Engineering**

*Undergraduate Learning Assistant & Peer Leader* *Aug 2016 - May 2017*

* Collaborated with professor and other ULAs to plan weekly course activities for CSE 291 course
* Interacted with students extensively to ensure mastery of **Python** programming, building confidence in problem-solving skills for newcomers to CSE community

**AerBots Inc.**

*Division Co-Founder & Product Development Engineer* *Nov 2016 - January 2017*

* Developed and designed fully-functioning **drone prototypes** for MSU-partnered startup with $400K valuation
* Constructed **website with interactive configurator web app in JavaScript**, and marketing material for funding pitch and product launch, creating public excitement and early offers for product up to $500 per unit

**TECHNICAL SKILLS & PERSONAL PROJECTS**

* Organized team as **team captain** to win **4th out of 36 teams** at **Google Games** competition at MSU (Oct 2017)
* **Proficient** in Python 3, C/C++11, MATLAB , C#, Java, Git, Adobe ActionScript, HTML5, CSS,

Adobe Creative Suite, OpenCL, OpenMP, GameMaker, linear algebra, embedded devices, Linux/Unix, Google Cloud Platform

* **Some** Unity 3D, 3DSMax, Maya, CUDA, Amazon Web Services
* **12 years of mastery** with various traditional and **computer animation** methods, including 2D, 3D, stop-motion, frame-by-frame, and tweening with **3D modeling** **and rigging**
* Programmed and designed all assets for **Windows video games** using the **GameMaker engine**