**EDUCATION**

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

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

* GPA: 3.4
* Relevant Coursework: Smart Sensor Systems, Object-Oriented Software Design, Computer Architecture

**RESEARCH & PUBLICATION**

Oliver, Jakob Arndt, **Parwesh Rallapalli**, Hodger Blume (2018). “Portable Implementations for High-End Hardware Platforms”, *Big Data Analytics in Cyber-Physical Systems*

**CERTIFICATIONS**

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

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

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

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

**EXPERIENCE**

**Institute for Microelectronic Systems, University of Hanover, Germany**

*Research Assistant* *Feb 2019 – Present*

* 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

**Institute for Microelectronic Systems, University of Hanover, 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

**Harman International, a Subsidiary of Samsung Electronics**

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

* Prototyped a **machine learning** algorithm to autonomously find defects in GM vehicle Android system logs, increasing efficiency of locating bugs
* Created CAN signal commands using RAFT for executing 1000+ Subaru vehicle software tests and validating bug fixes, allowing for solving hundreds of bugs
* 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 and materials for CSE 291 course
* Interacted with students extensively to ensure mastery of **Python** programming logic, 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

**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++11, MATLAB, ML, C#, Java, Adobe ActionScript 3.0, HTML5, CSS, Adobe Creative Suite, OpenCL, OpenMP, CUDA, Source Filmmaker; Some Unity 3D, 3DSMax, Maya
* **11 years of mastery** with various traditional and **computer animation** methods, including 2D, 3D, stop-motion, frame-by-frame, and tweening with **3D modeling** and custom rigging
* Programmed and digitally painted all assets for **Windows video game** using **GML code** (Dec 2017)
* Created YouTube animation using 1000+ manually-captured frames and **digital compositing** that garnered 50,000+ views
* Designed, budgeted, and **built multiple Windows computers** using self-taught knowledge and research