KONSTANTIN KOVALCHUK

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EDUCATION

University of Michigan *Ann Arbor, MI*
B.S.E Honors in Computer Science *September 2018 - Present*
GPA: 3.67 Expected Graduation Date: May, 2022
Relevant Coursework: Intro to Operating Systems, Data Structures and Algorithms (C/C++), Intro to Computer Organization (C/ARM/LC-2K), Foundations in Computer Science, Electronic Circuits, Intro Logic Design(FPGA/Verilog/Quartus), Linear Algebra, Multivariable Calculus.

EXPERIENCE

Information and Technology Services *Ann Arbor, Michigan*
Software Engineering Intern *May 2020 - August 2020*

- Designed and Implemented Ansible Roles, Playbooks, and Inventories automating provisioning and deployment for over 12 machines for WiFi Testing System using Vagrant environments

- Executed and debugged installation for the ELK stack, Perfsonar network testing software, and RabbitMQ on Ubuntu Raspberry Pi testpoints and Centos Central Processing server

- Applied Creative thinking for setting up several working message pipelines to take our network-scan and Perfsonar testing data through Logstash filters and display it in Kibana creating a convenient way to analyze WiFi performance and to query database

ISUZU MDP Powertrain Team *Ann Arbor, Michigan*
Software Engineer *January 2020 - Present*

- Developed and incorporated Machine Learning models (ELM, SVM, etc) into ISUZU Matlab simulation toolbox allowing making accurate predictions up to 0.92 without expensive real testing

- Self-taught working with Python Scikit libraries and further developed other Python ML related skills in a Jupyter notebook environment.

SKILLS

- **C++:** OOP, Smart pointers, Memory management, STL, Heaps, PQs, Binary Trees, Arrays, Loops, Abstract Data Types, Testing, Debugging, Pointers, Stacks, Ring Buffers, Structured Programming, File Handling.

- **Unix like Systems:** System administration for Centos/Debian/Ubuntu installations. Packet installation with apt/yum/rpm managers. Program and network debugging through various logs.

- **Vagrant:** Creating easily modifiable VirtualBox Unix environments with multiple machines for software development and debugging.

- **Ansible:** Working with various Ansible playbooks and inventories. Writing roles for specific machines. Developing and setting controllable multi-machine environments.

- **ELK stack:** Implementation and configuration of Elasticsearch, Logstash, Kibana with RabbitMQ clusters for multiple-source data gathering, processing and displaying using several pipelines.

- **Python:** OOP, Pika module, Arrays, Sets, Inheritance, Loops, Sequences, Linear Search, Binary Search, Recursive Algorithms, JSON module, File Handling, Debugging, Testing.

- **Version control:** Working collaboratively on the team project using GitHub workflow. Working with third party open source software packages. Contributing new code back to the community.