Nirajan Acharya

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CAREER FOCUS

Looking for an opportunity in the field of Computer Science that I needed to sharpen my knowledge and experiences.

EDUCATION

Youngstown State University (YSU), Youngstown, Ohio
College of Science, Technology, Engineering, and Mathematics (STEM)
Bachelor's in **Computer Science** Expected, May 2022
(Senior) Overall GPA: 4/4

COURSEWORK & COMPUTER SKILLS

- **Programing:** C, C++, Java, Python, LaTeX, and Java Script.
- **Coursework:** Operating System, Data Structure and Algorithm, Artificial Intelligence, Graphics and Game Design, Automata Theory, Discrete Structure, Honors Differential Equation, Encoding and Encryption, Server-Side Programming Language, Data Structure and Object, Advance Object Oriented Programming Language, Computer Architecture, Computer Organization, Calculus 1/2/3, Linear Algebra and Matrix, Bayesian Statistics, Software Engineering, Information Assurance, Networking Concept and Administration.
- **Tools:** Terminal, Visual Studio, NetBeans, Atom, Sublime text, Unity, PyCharm, Code blocks, MS office (Excel, Word, PowerPoint), Outlook, JupyterLab.
- **Operating Systems:** Ubuntu, Linux, Mac, Windows.
- **Testing:** Unit Test, Component Test

PROJECTS

- **Undergraduate Research:** Improving the efficiency of Huffman Encoding with the Cuda.
- **Operating System Project:** Implementation of a program that duplicates files into and out of a VirtualBox VDI file comprising a Linux ext2 filesystem.
- **Software Engineering Project:** Built Penguin Health App as a daily health assessment tool. This tool is specifically designed for the pandemic we're living in. It assists to determine if the user must be isolated to protect themselves, their families, and the community.
- **Senior Project:** Evaluation of Inference Pipeline for TrackML
- **Artificial Intelligence Project:** Designed finite State Machine for a non-player character with the help of randomness, depth first search algorithm, and breadth first search algorithm.
- **Computer Architecture Project:** Created Branch Prediction Simulator Program. For this program, I implemented algorithms: Smith Predictor, Global-History Two-level Predictors, Local-History Two-level Predictors, and gshare Predictor discussed in Shen and Lipasti's book.
- Employed shortest path finding algorithm in C++.
- Made 4x4 Tic-tac-toe game with the implementation of Min-Max Algorithm.
- Created GOPHER online shopping app through JAVA servlet, JAVA Script and Angular.

- Worked on the project "Evaluation of Inference Pipeline for TrackML". Where we tried to improve the efficiency of different pipeline stages: Data Loading, Embedding, Build Edge, Filtering, Graph Neural Network and Labeling.
- Made Snake and Tic-tac-toe game using Java object-oriented programming language.

WORK EXPERIENCE

Intern at Envision and Software Solution Pvt Ltd March 2017-Sep 2017

- Helped in developing an innovative App and websites.

The Shodor Education Foundation, Inc. Aug 2021 – Present

- Worked as research participant on the project "Evaluation of Inference Pipeline for TrackML".

Kilcawley Center (YSU) Dec 2018 – March 2019

- Desk Assistant

Shree Haraiya Higher Secondary School June 2016-May 2017

- Instructor for programming and problem solving

HONORS & ACTIVITIES

- Honors College Scholarship
- YSU International Scholar Award
- President's list Award

REFERENCES AND CONTACTS

Dr. Robert Kramer
Youngstown State University
One University Plaza, Youngstown, OH, 44555
330-941-1495
rwkramer@ysu.edu

Dr. Kramer was my professor for Data Structure and Algorithm, and Operating System.

Dr. Alina Lazar
Youngstown State University
One University Plaza, Youngstown, OH, 44555
330-941-3468
alazar@ysu.edu

Dr. Lazar was my professor and mentor for Senior Project and Research.