Sree Yashwanth Sai Venkatesh
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EDUCATION

Master of Science, Computer Engineering September 2022 - March 2024
University of California, Riverside (UCR)
Relevant Coursework: GPU Architecture and Programming, Advanced Operating Systems, Database Management Systems, Advanced Software Testing

Bachelor of Engineering, Computer Science and Engineering August 2016 - September 2020
P.E.S College of Engineering, Mandya, India (P.E.S.C.E) (CGPA: 7.87/10)
Relevant Coursework: Data Structures, Design and Analysis of Algorithms, Object Oriented Programming

SKILLS

Languages: C, C++ 20, CUDA C, Python, MySQL, Java, JavaScript, HTML, CSS
Technical Skills: GPU Programming, Automation Testing in Selenium, Data Structures and Algorithms (DSA), C++ Standard template libraries (STL), Performance Analysis(gprof), Jira, Object Oriented Programming, Distributed Systems, Hadoop, Software Engineering, CUDA FFTs, GIT, Microsoft Azure, Google Cloud Platform (GCP), Pega systems, C++ Thrust, Linux Systems, Amazon Web Services (AWS), Spring Framework, NoSQL
Technical Practices: DevOps, Agile Methodology

WORK EXPERIENCE

Directed Researcher, University of California Riverside, Riverside, CA September 2023 - March 2024
- Researched the efficiencies that can be gained by parallelizing code using GPUs.
- Collaborated with 7 Ph.D. and graduate students, under the direction of the lead professor, to improve the efficiency of the Catch-22 Features.

Associate Software Engineer, Ernst and Young GDS, Bangalore, India October 2020 – June 2021
- Developed a cybersecurity app for a UK-based banking client using C++ for secure communication protocols and threat detection algorithms.
- Executed 100+ test cases in C++, identifying and fixing 50+ security vulnerabilities, reducing post-release issues by 20%.
- Implemented C++ modules with a focus on encryption, authentication, and secure data transmission, using tools like Snort and OpenSSL.
- Conducted penetration testing and vulnerability assessments with the cybersecurity team, ensuring stringent security standards.
- Utilized modern C++ libraries, including Boost for efficient development and Crypto++ for cryptographic operations.

Engineering Intern, Ebox Amphisoft Technologies, Mysore, India January 2020 - March 2020
- Worked with a team of 8 to develop a website to digitize the food ordering process for a restaurant using HTML, CSS, and MySQL.
- Delivered working code, specialized in front-end web development.

ENGINEERING PROJECTS

GPU Implementation of Catch-22 Time Series Classification, Department of CS, UCR September 2023 - March 2024
- Part of a research team of 7 PHD & Graduate students, that aim to improve the efficiency of time series classification using GPUs.
- The team optimized matrix profiling for parallel computation using GPUs rather than serial computation.
- Personally translated the Catch-22 features from C into CUDA then integrated them into the PySCAMP framework.
- Deployed and evaluated parallelized PySCAMP on Google Cloud Platform & compared against the live serial version of Catch-22 resulting in 46.65% improvement in speed on small datasets and 67.34% improvement on larger datasets.

Fake News Detection System, Project, Department of Computer Engineering, UCR May 2023 - July 2023
- Developed a deep learning model in Python using LSTM to detect fake news based on the headline.
- Cleaned data, including text, tokenization, and data balancing, to ensure the dataset's quality and diversity.
- Trained using a dataset of 44,897 news articles achieving 96% accuracy.

Web Crawler, Project, Department of Computer Science and Engineering, P.E.S.C. February 2019 - May 2019
- Developed a C++ web crawler App that extracts links from websites and follows them 2 depth levels.
- Utilized the libcurl library for making HTTP requests and the libxml2 library for parsing HTML content.