JERRY ALLAN AKSHAY

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EDUCATION

University of Southern California, Viterbi School of Engineering **Los Angeles, CA**
Masters in Computer Science August 2021-May 2023
Honors: MS CS Honors Student **GPA:** 4.0
Relevant Coursework: Analysis of Algorithms, Databases, Web Technology, Machine Learning, Operating Systems

SKILLS

- **Programming Languages:** C, C++, C#, Java, JavaScript, TypeScript, HTML, CSS, XML, Python, PHP, Kotlin, Bash
- **Frameworks and Tools:** ElectronJS, Angular, React, NodeJS, Flask, .NET, SQL, SQLAlchemy, Bootstrap, JQuery, Firebase, Git, SVN, Docker, AWS, REST, Android Studio, NoSQL, FIGMA, Jest, Pandas, Scikit-learn, Numpy, Matplotlib, RegEx, Markdown, SASS, UNIX

EXPERIENCE

Information Sciences Institute | **Full Stack Developer** September 2021-Present

- Direct and implement a GUI, REST APIs, and a uniform definition syntax to revamp ease-of-use of DEW (Distributed Experiment Workflows), a novel approach to testbed design, orchestration, and analysis, currently benefitting 2000 users
- Coordinate and drive the DEW portal to achieve a 60% higher user count and 100% user retention
- Introduce an enhanced GUI with revised statistics collection process of SEARCCH, a tool utilized by researchers to rapidly share and find research artifacts, helping administrators get insights into website usage patterns incorporating 10 different metrics

Juniper Networks | **Software Engineering Intern** May 2022-August 2022

- Detected security issues and achieved better security by fixing a critical security vulnerability involving data retrieval from AWS servers on booting a machine instance on AWS, saving Juniper Networks millions in case of a data breach
- Brainstormed and implemented a usage statistics retrieval mechanism on vSRX – a virtually hosted Juniper firewall system – enabling retrieval of traffic data across at least 6 protocols used to improve AI-driven network security mechanisms

Unisys | **Associate Engineer** September 2020-July 2021

- Led a team of 5 developers to devise a new cross-platform installer for STEALTH, a Unisys cybersecurity product
- Eliminated redundant development and maintenance process by building a common installer UX across all platforms leading to a common codebase and documentation, resulting in 3 times lesser development and maintenance time

ACADEMIC PROJECTS

Stock Search (Link) January 2022-May 2022

- Built and presented an Android Application along with a Web Application making use of Highcharts and Finnhub APIs, enabling users to search for, track, and trade stocks; saving users time and effort by at least 50%

Machine Learning Algorithms and Neural Networks January 2022-May 2022

- Collaborated and designed highly efficient Neural Networks (CNNs, and LSTM RNNs) to determine if a movie review is positive or negative by performing sentiment analysis, with accuracies close to 85%
- Developed Machine Learning Algorithms and Ensemble Methods to predict/analyze data, with high accuracies close to 95%

PUBLICATIONS

EPM: Meta-learning method for Remote Sensing Image Classification (Link) August 2020-December 2020
Springer, Machine Intelligence and Smart Systems

- Co-authored a paper on an improved ensemble remote sensing image classification model leveraging few-shot learning paradigm
- Proposed algorithms and improved accuracy scores by around 10% over traditional few-shot learning models

LEADERSHIP

USC Viterbi School of Engineering | **Graduate Teaching Assistant** August 2022-Present

- Assist in teaching Machine Learning to a class of 700 graduate students by holding office hours, drafting and grading homework, and proctoring exams

IEEE UVCE | **Vice-chairperson** April 2019-March 2020

- Planned, coordinated, and organized bootcamps, workshops, and hackathons with an attendance of 300 students
- Initiated weekly status update meetings and sync-up nights to ensure team coordination and collaboration