

JERRY ALLAN AKSHAY

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EDUCATION

University of Southern California, Viterbi School of Engineering

Masters in Computer Science

Honors: MS CS Honors Student

Relevant Coursework: Analysis of Algorithms, Databases, Web Technology, Machine Learning, Operating Systems

Los Angeles, CA

August 2021-May 2023

GPA: 4.0

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 SEARCCCH, 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

- Detect security issues and achieve 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
- Brainstorm and implement 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 invigilating 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