Varun Yeruva

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EDUCATION

Bachelors in Computer Science & Applied Statistics

August 2022 – December 2025

University of Virginia

Charlottesville, VA

Relevant Coursework: Machine Learning, Reinforcement Learning, Computer Vision, Natural Language Processing, Data Mining, Database Systems, Discrete Math, Computer Systems, Data Structures & Algorithms, Software Engineering

SKILLS

Languages: Python, JavaScript, Java, C#, C/C++, Go, Kotlin, TypeScript, HTML/CSS, SQL, R

Frameworks/Libraries: .NET, Angular, Django, React, Sails.js, JUnit, Mockito, Selenium, Cucumber, NumPy,

pandas, Matplotlib, seaborn, scikit-learn, PyTorch, TensorFlow, Keras, OpenCV **Other Tools**: Ansible, AWS, Oracle Access Management, Jenkins, Tableau

EXPERIENCE

Software Development Internship | JavaScript, Java, MySQL, Ansible, React | May 2025 - August 2025 Leidos | Chantilly, VA

- Automated the workflow of a **SAML** authentication and authorization service within an Agile team, reducing consumer integration time by 50% and accelerating client onboarding.
- Integrated a new Okta-based authentication method for a client, enabling secure access to sensitive data previously unavailable through existing login methods and expanding client capabilities.
- Replaced outdated regression testing automation with modernized processes, cutting testing time by 85% and improving efficiency and coverage across feature validation.

- Developed 9 tools to automate the testing cycle of molecular imaging scanners in **SPECT** machines, reducing system validation time by 30% and enhancing patient safety by minimizing risk of equipment malfunction.
- Refactored 17 tools from outdated platform, using Windows Forms with the .NET framework to ensure compatibility with the current system, resulting in smoother user experience with a 60% reduction in issues.
- Designed an ECG visualization and scanner control system within a new systems simulator to test future software, leveraging **SignalR** for seamless integration with the existing **C#** codebase.

- Supported instruction of core software engineering principles for 200+ students, reinforcing Agile vs. Plan-driven methodologies, design patterns, and the software development lifecycle to strengthen foundational knowledge.
- Mentored student teams in Django project development, applying Agile practices to improve collaboration and ensure on-time delivery of project milestones.
- Evaluated assignments and labs for 300+ students, providing detailed feedback that deepened understanding of computer architecture concepts such as page tables, multi-threading, and client-server communication.

PROJECTS

Resident Voice | Python, Django, HTML, PostgreSQL, AWS

January 2024 – April 2024

- Built a secure web platform for reporting housing and neighborhood concerns, streamlining community issue resolution and increasing response efficiency.
- Implemented user authentication and role-based access control, ensuring whistleblower privacy while integrating **PostgreSQL** for structured data storage and Amazon S3 for secure file uploads to ensure scalability and security.

CrashSense | Python, pandas, scikit-learn, Matplotlib, TensorFlow, Keras October 2024 - December 2024

- Analyzed 1M+ Virginia car crash records to predict crash severity, identifying key risk factors to support strategies for reducing fatalities and improving road safety.
- Preprocessed and cleaned large-scale datasets, applying K-means clustering to detect high-risk crash hotspots and training a Random Forest Classifier that achieved 65–70% prediction accuracy.