

Travis Sloneker

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SUMMARY

Experienced software engineer specializing in AI, computer vision, and robotics with 10+ years designing and building scalable software systems, automation solutions, and data-driven applications. Experienced in Python, Java, SQL, REST APIs, CI/CD, and enterprise software development, with a proven ability to deliver reliable solutions in production environments. Currently pursuing an M.S. in Artificial Intelligence, applying machine learning, computer vision, and robotics concepts to real-world projects while collaborating effectively across cross-functional teams to deliver business results.

EDUCATION

UNIVERSITY OF COLORADO BOULDER, Boulder, CO

Master of Science in Artificial Intelligence (GPA: 3.855 - Expected Graduation: 04/2027)

- *Relevant Coursework:* Intelligent Agents & Search Algorithms, Modeling of Autonomous Systems, Computer Vision, Probability Theory for AI & Data Science, Machine Learning

TECHNICAL SKILLS

Programming: Python, C++, Java, JavaScript, SQL, HTML, CSS

AI / Machine Learning: PyTorch, OpenCV, NumPy, Pandas, Scikit-learn, Matplotlib

Development: Git, Jenkins, CI/CD, REST APIs, Microservices, Automation, Agile, Unit Testing

Robotics: Ubuntu Linux, ROS 2, Raspberry Pi, Webots, Robot Simulation, Localization, Odometry, Sensor Integration, Control Systems

PROFESSIONAL EXPERIENCE

PROFESSIONAL SYSTEM ASSOCIATES, INC.

Software Engineer

04/2018 - Current

- Designed and implemented scalable Java applications, reusable software components, and automated data pipelines that transformed enterprise data into production systems, reducing time to actionable business insights by 34%.
- Implemented Jenkins-based CI/CD pipelines and automation tools that streamlined application deployments, reduced manual reporting effort, improved software delivery reliability, and increased team productivity by 52%.
- Engineered event-driven automation services that integrated multiple enterprise data sources with real-time monitoring, improving workflow efficiency by 78% while increasing operational visibility and accelerating business response times.
- Collaborated with architects, senior engineers, and business stakeholders to design scalable software solutions, optimize SQL queries, develop reusable components, and translate business requirements into maintainable production applications.
- Investigated and resolved complex production issues through application debugging, SQL query optimization, log analysis, and root cause investigation, restoring customer operations while minimizing production downtime.
- Performed code reviews, developed internal engineering tools, and contributed to architectural design discussions to improve code quality, maintainability, and long-term scalability across enterprise applications.

PROJECTS

TRANSFER LEARNING FOR COMPUTER VISION (GALAXY CLASSIFICATION)

- Developing an end-to-end computer vision pipeline in PyTorch for image classification workflows, including custom dataset loaders, training loops, augmentation pipelines, and evaluation tooling
- Comparing frozen and fine-tuned transfer learning strategies across ResNet18 and EfficientNet architectures to analyze accuracy, generalization, and inference trade-off
- Implementing modular training and inference architectures following scalable software engineering and MLOps-style design practices

HIWONDER TURBOPI ROBOTICS PLATFORM

- Developing mobile robot behaviors using Raspberry Pi hardware, onboard sensors, and Python.
- Implementing line-following, obstacle avoidance, and sensor-fusion-based navigation algorithms.
- Applying robotics concepts including perception, control loops, localization, and self-decision-making.
- Configuring Ubuntu Linux development environments and exploring ROS 2 integration for robotics applications.

WEBOTS ROBOTICS SIMULATION

- Developing simulated mobile robot systems using Webots and Python.
- Implementing wheel encoder processing, odometry estimation, and sensor-based navigation behaviors.
- Designing navigation experiments to evaluate control and perception algorithms in simulation.