

Kalapathy, Branavan

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About Me

Computer Engineer with experience in full-stack development, system automation, and backend scripting across Unix, Windows, and mainframe environments. Skilled in Angular, Java, C/C++, Python, and data-driven development, with hands-on work improving deployment workflows, automating processes, and enhancing system reliability. Strong foundation in OS architecture, networking, embedded systems, artificial intelligence, and RISC-V CPU design, backed by multiple engineering and ML projects. Proactive, adaptable, and focused on building efficient, high-quality software solutions.

Education

University of South Carolina; B.S.E Computer Engineering (12/9/2022))

Midlands Technical College; Pre-Engineering Track (05/2018)

Certifications

MIT Schwarzman College of Computing; Data Science and Machine Learning (1/2023)

Experience

University of South Carolina; Heterogeneous and Reconfigurable Computing Lab (Aug, 2025- Current)

Research volunteer under Dr. Jason Bakos. Developing a 5-stage RISC-V vector extension array processor for Machine learning.

IT Business Unit Trainee (Feb, 2023)–[July, 2023)

Blue Cross Blue Shield of SC

Unix Automation and scripting, risk and vulnerability detection, and data handling,

Skills

- **Software/OS and Tech:** Logisim, Verilator, MATLAB, Oscilloscopes and Logic Analyzer, , Electro-mechanical circuits, VPN config, VMware vSphere, Active Directory, Group DHCP, and DNS EXCEL, R Studio, ROS, Docker, AWS, OCL, Kubernetes, Terraform, Wireshark, MARS, Labview, Microsoft Office, Intel Quartus, Anaconda, PyCharm, Visual Studio Code, Linux, Windows, and MacOS
- **Computer programming:** Java, C++, Python, System Verilog, R, Typescript/Angular, MySQL, HTML/CSS
- **Disciplines:** Computer Architecture and troubleshooting, Artificial Intelligence, Networking, Software, and Electrical Engineering