



Innovation Team - Research Software Engineer

We are seeking a talented and innovative Software Engineer to join the Innovation Team at Scale Computing. As a Research Software Engineer, you will collaborate closely with the VP of Product Strategy and Innovation to conduct cutting-edge research and develop prototypes that push the boundaries of distributed edge computing. This role offers the opportunity to help shape the future of IT solutions and drive advancements in Scale Computing's edge computing capabilities. The ideal candidate will be responsible for developing functional prototypes and PoCs, conducting research into a wide range of open-source technologies and 3rd party solutions within the broad edge computing ecosystem, and contributing to the innovation of our edge computing products, services and solutions.

Projects will span a variety of IT infrastructure hardware and software challenges, clustering and fault tolerance, deployment and management of edge computing applications including AI/ML, Computer Vision, and IoT. Technologies include server virtualization, software-defined storage, networking, container orchestration including Kubernetes, cloud and edge orchestration and deployment tools including Ansible, Terraform, GitOps, CI/CD, Infrastructure as Code (IaC), Hybrid Cloud and SaaS API Integrations.

Initial projects will include researching and prototyping enhanced Containers as a Service (CaaS) Kubernetes experience for Scale datacenter and edge on-premises deployment. Researching Kubernetes integration and infrastructure abstractions such as CSI (Container Storage Interface), CAPI (Kubernetes Cluster API), CPI (Cloud Provider Interface) and CCM (Cloud Controller Manager). Researching and prototyping enhanced use of kvm/qemu/libvirt capabilities such as virt-v2v / libguestfs, hardware passthrough, enhanced guest agent functionality, improved external storage system integration to HypeCore and presenting software defined storage for use by external systems outside the hyperconverged infrastructure as part of broader ecosystem.

Key Responsibilities

- **Research and Innovation:** Along with VP of Product Strategy, collaborate with cross-functional teams to explore new technologies, integrations, and methodologies that will help Scale Computing drive continuous innovation in the edge computing market.
- **Prototype Development:** Design and develop various software prototypes and PoCs to validate emerging market requirements and technical feasibility to support future product development and innovation.
- **Document and Demonstrate:** Document prototype testing results, performance metrics, and research findings. Demonstrate and Communicate technical concepts effectively to team members and stakeholders both within Scale Computing and outside customers, prospects and partners as applicable.
- **Productization:** Collaborate with Scale Computing Product teams to refine prototype

designs and assist with the transition of prototypes to our production engineering teams as applicable.

Qualifications

- **Education:** Bachelor's or Master's degree in Computer Science, Software Engineering, or a related field or demonstrable experience.
- **Experience:** Minimum of 3 years of experience in software engineering with a focus on containerization or virtualization infrastructure.

Technical Skills

- Proficiency in programming languages such as Python, Go, and Bash.
- Expertise in Docker and Kubernetes for container orchestration.
- Strong understanding of cloud platforms (e.g., AWS, Azure) related to Kubernetes and "cloud-native" application deployment.

Soft Skills

Strong problem-solving abilities and a collaborative mindset. Ability to work independently on difficult problems and collaborate within a dynamic team environment.

Preferred Skills

- Experience with infrastructure as code tools like Terraform or Ansible.
- Knowledge of distributed systems and DevOps practices.
- Familiarity with CI/CD pipelines for automated deployment processes.

Benefits

- Competitive salary based on experience.
- Comprehensive health insurance including vision.
- Opportunities for professional development and career growth.

Join us at Scale Computing to push the boundaries of IT edge infrastructure through innovative research and prototyping.