Colin Schroeder - Software Engineering Manager

Education & Experience

- B.S. Computer Science 2017 - University of Alaska Anchorage
- 5 years - Engineering Lead / IT Manager
- 15 years - Software Engineering
- 20 years - IT

Contact

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Recent Accomplishments

- Managed the IT infrastructure for the FAA Weather Camera Program Office (WCPO) with 955 first party cameras spread out across 255 sites owned by the program.
- Led the development of https://weathercams.faa.gov with 100,000 users and 8 million pageviews per month.
- Successfully moved WCPO to a serverless infrastructure (50 services) with docker and app engine.
- Migrated WCPO to infrastructure as code with Terraform.
- Modernized the deployment of cloud infrastructure with a CI/CD pipeline using GitHub actions, unit tests, and screenshots displayed in PRs.
- Modernized deployments, updates and management of the camera network using Ansible.
- Developed and deployed a Progressive Web Application for https://weathercams.faa.gov dramatically reducing app size for repeated use.
- Successfully launched a 3rd party API to support dissemination of camera images.
- Developed and obtained risk acceptance for a new visibility detection method using camera images in partnership with MIT LL.
- Developed a cutting edge 360 camera stitching interface leveraging WebGL reducing image stitching time from 10 min to 150ms enabling realtime image stitching from 4k camera feeds in the browser.
- Developed a WebXR game using Three.js in under a month.

Goals

I'm looking for a leadership role on an ambitious team who is anticipating how current trends and technology will shape the world. Let's manifest the future!

I work best in domains I am passionate, for leaders with ambitious vision, and in organizations where top performers have latitude.

I like working on projects simultaneously, where I am creating and developing demos into full featured products.

I'm interested in VR, WebXR, WebGPU, Web3, distributed computing, crypto, decentralized services and protocols, computational physics, Open Source, entrepreneurship, aerospace, and rocking the boat.

Technology and concepts I'd like to work with

Virtual Reality, Open Source Infrastructure, Infrastructure as code, Terraform, docker, keycloak, kubernetes, node.js, ECMA2016, react, Three.js, Postgres, Service Oriented Architectures, Progressive Web Applications, Cloud Native Architectures, Cloud Portable Architectures, Scalability and Optimization, Leadership, Strategy, CICD, DevOps, DevSecOps, zero trust, WebXR, High Performance image stitching, Ubuntu, keycloak, gitlab

Technology with past experience

JavaScript, Node.js, React, Python, C#, ColdFusion, SQL, HTML, WebGL, WebXR, CSS, jQuery, AJAX, .NET MVC, C, C++, Bash, JSON, XML, PyOpencl, PyCuda, Panda3D, OpenGL, AutoLisp, Bottle.py, Flask.py, pyGNOME, PostgreSQL, MySQL, MS SQL Server, SQLite, Oracle, Wireguard, Shorewall, AWS, Android, Windows Server, Linux, Debian, Gentoo, Red Hat, Slackware, OSX, VMWare ESXi, Hyper-V, VirtualBox, Samba, Geospatial Data abstraction Library, Apache, NGINX, Tomcat, Visual Studio, GIMP, Atom, Git, Redmine, Trac, GeoServer, AutoCAD, VirtualBox, Django, QGIS