Colin Schroeder - Software Engineering Manager

Education & Experience

- B.S. Computer Science 2017 - University of Alaska Anchorage
- 4 years - IT Manager
- 8 years - Software Engineering Lead
- 18 years - Software Development
- 20 years - IT

Contact

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Recent Accomplishments

- Led the migration from Google Cloud Platform to Amazon Web Services FAA Cloud Services (AWS FCS) for over 70 services
- 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 build 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 proofs of concept into full featured products.

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

Technology and concepts I'd like to work with

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

Employment History

Federal Aviation Administration (May 2020 - Present)

Worked as the IT lead managing simultaneous software projects and operations of the camera network, websites, and infrastructure required to support them.

Leidos (March 2016 - May 2020)

Worked as a consultant for the F.A.A. Weather Camera Program Office. Most recently as the IT Lead. Project roles include: Software Architect, Sr. Software Engineer, Team Lead, Network Engineer, System Administrator, Development Operations, Project Manager.

GeoNorth (October 2010 – March 2016)

Served a number of roles over the years including a Sr. Consultant, Sr. Software Engineer, Team Lead, Network Engineer, System Administrator. Clients included State and Federal organizations as well as private entities.

Wostmann & Associates Inc. (Feb 2008 - January 2010)

As a Consultant, used primarily C# and ASP.NET, worked in teams in Anchorage and Juneau to develop, implement, and debug database driven web applications for the State of Alaska Department of Environmental Conservation, the Department of Public Safety and the Department of Commerce Community and Economic Development. Also was responsible for the Anchorage network and server administration.

CH2M Hill/Veco Inc. (January 2007 – January 2008)

As a Digital Plant Analyst, worked in the oilfield process engineering design team, provided day to day technical support and troubleshooting with AutoCAD, Bentley digital plant design, AutoLisp Macro implementation, and assistant administrator of Bentley Document Databases.