EVAN POLSTER

SOFTWARE DEVELOPER

CONTACT

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SKILLS

Contemporary Experience:

AWIPS
Cloud
Containers
Linux, Windows, Mac OS

Competencies:

Java
Docker
Bash

Proficencies:

C++, Python, Go
Perl
VLab, Redmine, Gerrit
JavaScript, HTML, CSS
Elasticsearch
Git, Github

Amazon Web Services

EC2
NICE/DCV
AppStream
WorkSpaces

Eclipse Framework

Plugin Development
Rich Client Platform
IDE
Eclipse 3.x / 4.0

CAREER OBJECTIVE

I am interested in working with contemporary technologies including Cloud and Containerization infrastructures. My greatest interest is in strengthening my Amazon Web Services (AWS) skill sets.

WORK EXPERIENCE

Technical Lead - FxCAVE

NOAA - Global Systems Laboratory

January 2013 - current

- As part of the Evaluation and Decision Support Division, worked on the FxCAVE project for the delivery, deployment, and support of the Advanced Weather Interactive Processing System (AWIPS II). Primary customer was the National Interagency Fire Center (NIFC/BLM/DOI).
- Migrated on-premise AWIPS II solution to the AWS cloud, transitioning the Environmental Data EXchange (EDEX) server from a standalone deployment to a distributed cluster-hybrid deployment. Distributed EDEX solution allowed for ingest of global and local data allowing field personnel to access one server address (EDEX Camel Request) for both the CONUS (DSS) and OCONUS (AFG) localizations. The Common AWIPS Visualization Environment (CAVE) desktop thin client application was migrated to desktop virtualization leveraging all of NICE/DCV, AWS AppStream, and AWS WorkSpaces.
- Migrated an AWIPS EDEX cluster into a Docker Swarm using a multi-stage build process; separate worker nodes contained database, messaging, processing, and LDM ingest services.
- Supplied other team members/developers with application development environments (ADE) across multiple versions of AWIPS.

Principal Developer - Ensemble Tool

NOAA - Global Systems Laboratory

Apr 2016 - Sep 2017

- Built, in a team of two, a CAVE feature called the Ensemble Tool, for statistical analysis of meteorological ensemble data. This feature was built on Eclipse 3.x and leveraged the Plugin Development Environment and the Rich Client Platform.
- The Ensemble Tool underwent peer-review (using Gerrit) and was integrated into the AWIPS II baseline.
- The Ensemble Tool contained an individual and ensemble forecast model browser and a matrix comparison tool. The former allowed for statistical comparison of ensemble and individual model runs. The latter allowed a user to compare sets of field/plane pairs between models/runs.

EDUCATION

Bachelor of Arts
Computer Science (Major)

State University of New York at Postdam
1980 - 1984
Potsdam, NY

Senior Developer - FX-Net

NOAA - Forecast Systems Laboratory

April, 1999 - December, 2012

- Responsible for development, support, and maintenance of the FX-Net project's AWIPS-based D/2D emulation solution. Development included server and client side feature creation, enhancement, and maintenance, including display engine improvements, text browser inclusion, and many other features as well.
- Built Grid Extraction Tool web interface which allowed field specialists to query multiple meteorological forecast models for grid points matching a given set of criteria. Queries could include, for example, extracting all points with humidity was below a certain percent, temperature was above a certain degree, and wind was above a certain strength.
- Built a Global Icosahedral Atmospheric Model (GIM) viewer tool which was a JavaScript-based web application using Google Web Toolkit and the Google Earth engine. The GIM Tool (https://esrl.noaa.gov/gsd/wrfportal/CIRA-Magazine-GIMTool.pdf) was a simple web application, served by Apache Tomcat, which explored the feasibility of using Google Earth as a scientific tool for visualizing the finite-volume flow-following icosahedral model (FIM).

Software Developer

Sybase, US West, SISCOM, Digital Equipment Corp

Nov 1984 - March 1999

- Legacy experience available upon request.