G. Alexander Gray II

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Objective

I seek a position where I can use my scripting and AWS infrastructure knowledge to create a more efficient and productive development cycle that produces software of higher quality.

Professional Experience

Point Predictive, Durham, NC

Director of DevOps (April 2021 to Present)

- Develop customer facing FastAPI/uWSGI endpoints.
- Create a CI/CD pipeline using Terraform and Jenkins.
- Transform all Serverless apps to Terraform.
- Maintain all security vulnerabilities in check (AWS Inspector, Snyk, ECR Scanning, CrowdStrike)
- Keep our AWS Costs in check by implementing spot.io clusters, alerts on cost in cloudhealth.com, and re-architecting projects to be more cost efficient.
- On call 24/7 for all customer facing issues. Implement over 2K CloudWatch alarms for our application and our infrastructure.

ClearCare Online, Durham, NC

Senior DevOps Engineer (Oct 2015 to April 2021)

- Manage the Continuous Integration/Deployment Pipeline for ClearCare in Jenkins.
- Follow a CI/CD pipeline of our infrastructure-as-code using Terraform.
- Implemented Green/Blue Deploys in AWS ECS using our docker containers.
- On call 24/7 for any mission critical issues. Common debug tools for these issues include: PagerDuty, Datadog, Sentry, Loggly, NewRelic
- Created in-house tool (AWS ALB with Lambda behind it) to facilitate deployments and scale of ECS containers and services.
- Monitor AWS security (using WAF, Security Groups) and Infrastructure Security using Threatstack/ Tenable.
- Monitor and squash all unwanted attempts of ssh onto our bastion servers.
- Manage all VPN servers into our VPC.
- Manage all company certificates.
- Monitor and react to all AWS cost alerts.

Interactive Intelligence, Durham, NC

Team Lead, DevOps Engineer (March 2013 to Oct 2015)

- Manage the Continuous Integration/Deployment Pipeline for PureCloud in Jenkins, from code commit to deploy, including implementing the build/deploy/promote python scripts interacting with Amazon Web Services.
- Sole developer on the Jenkins Slave Manager python script that dynamically creates build/test/deploy machines in AWS EC2.
- On call 24/7 for any mission critical issues via NewRelic and PagerDuty.
- Managed an in-house centralized logging system with Elasticsearch/Logstash/Kibana.
- Managed custom alerts in Sensu, assisted in an in-house metrics system with Graphite, and displayed various metrics on TV dashboards via Tasseo.
- Mange 3 people on the DevOps team.

EMC/RSA, Durham, NC

DLP Release Engineer (April 2011 to October 2012)

- Managed Perforce and SVN SCM systems, including implementing scripts for various tasks.
- Automated software builds for all products and third-party libraries.
- Maintained 40+ multi-OS build machines and 20+ build scripts.
- Implemented a Hudson/Jenkins "build-machines-on-demand" system with Lab Manager to reduce build queue size and build time.
- Developed a custom software build system in Python to replace existing ANT scripts to reduce lines of code by factor of 10.

The MathWorks, Natick, MA

MATLAB Interface Quality Engineer (November 2007 to June 2010)

- Developed automated Python test harness to run unit tests using Microsoft's Gflags thread checking tool. Task involved evaluating various thread checking tools such as helgrind, drd, Intel Thread Checker, and MS CHESS.
- Implemented various MATLAB scripted tests in conjunction with MEX executables (C++ Code).
- Collected various metrics such as code complexity, code coverage, and performance regression.

Analog Devices Inc., Norwood, MA

Release and Software Quality Engineer (October 1999 to November 2007)

- Developed and maintained an automated parallel testing environment for VisualDSP++ software tools. The testing scripts predominantly used COM as a means to communicate to both the simulators and emulators. Development community used the results as the primary basis for the overall quality of the software. Testing environment was written in Python.
- Designed and implemented installation software for various CROSSCORE products, which included InstallShield and a custom installer written in C/C++.
- Assisted in creating an automated build environment for Linux and Windows operating systems. Python scripts performed various tasks, from the initial CVS commands to the final installation package.
- Assisted in the development of various DSP specific, audio/video VDK applications using VisualDSP++ development tools.
- Participated in various projects such as The MathWorks' "Link for Analog Devices VisualDSP++" and National Instruments' "LabVIEW". Responsibilities included quality product integration and point person for The MathWorks product.
- Worked directly with customers on troubleshooting various installation, hardware, and software issues.

Tools

- **AWS:** EC2, ECS, Dynamodb, Redshift, RDS Postgres/MySQL, S3
- **OS:** Centos/AWS-OS, Mac, Fedora, Ubuntu, Windows
- **Scripting:** Python, BASH, Ruby, VBScript, JavaScript, TCL/TK
- **Languages:** C#, C/C++, MFC, Java
- **Source Control:** Git, SVN, Perforce, CVS, SourceSafe

Education

Boston University, Metropolitan College, Boston, MA
Graduate Certificate in Software Engineering (December 2003)

Boston University, College of Engineering, Boston, MA
Mechanical Engineering – Bachelor of Science Degree (September 1999)