

Austin Schaffer

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Last Updated - March 19, 2024

Statement of Purpose

I am a software engineer with 8 years of professional experience. I am most proficient with cloud software, but I also have experience in many other domains including DevOps, edge computing, desktop applications, system administration, and application support. I love working with large volumes of data. I love designing the architecture for new applications. I love investigating issues with systems, proposing solutions, and implementing those solutions. My aim is to increase reliability, lower cost, build cool things, and learn everything that I can.

Work Experience

Staff Software Engineer

September 2021 - Current

Everactive - Cloud Team

TimescaleDB, PostgreSQL, Kafka, RabbitMQ, Kotlin, Go, Typescript, Python, GitLab, Terraform, Docker, MQTT

- Multi-faceted cross-team software engineering role, from edge to cloud computing
- Design, architect, and develop real-time data streaming infrastructure for batteryless IoT devices
- Develop cloud-native distributed applications comprising REST APIs, microservices, message queues, and DBs
- Routinely investigate the health and cost of data ingest and storage, and implement improvements
- Routinely investigate performance issues with production TimescaleDB SQL queries for time-series data
- Routinely investigate issues with LTE Ubuntu Core gateways deployed at customer sites, using Tailscale
- Designed and built a battery-powered air-gapped field tool for flashing sensor firmware using a Raspberry Pi
- Designed and implemented a real-time data egress service, supporting both HTTP and MQTT
- Designed and built an airgapped version of our cloud software

Infrastructure Engineer (DevOps)

April 2020 - September 2021

Merkle Inc. - Datascience (DSCI)

1 year, 6 months

AWS (EC2, AMIs, Lambda, EMR, S3, IAM), Python/Anaconda, Linux, Bitbucket, Docker, Terraform, Packer

- AWS admin and DevOps resource for Merkle's data science team
- Managed infrastructure in AWS using Terraform and Bitbucket Pipelines
- Deployed Python data science workloads to EC2 instances and EMR clusters
- Developed Python packages for interfacing with vendor systems including AWS and Snowflake
- Improved the team's dependency management systems using Poetry, simplifying conda environments
- Maintained an EC2 AMI build and release process, keeping dev and prod environments secure and up to date
- Worked across teams to ensure secure IAM users, roles, and policies are in place for cross-account access

Software Developer

January 2017 - April 2020

Atlas Systems, Inc. - Devgineers

3 years, 4 months

Python, Git, Docker, Debian Linux, C# (.NET Framework and .NET Core), Linode, Azure, Azure DevOps

- Developed ETL pipelines for archival metadata using Python
- Provisioned and managed Linux VMs for docker-compose environment deployments
- Configured automated build pipelines in Azure Devops
- Set up private package registries for Python and C# projects
- Trained development and data migration teams on Git, Python, Docker, SQL, and Azure DevOps Build Pipelines
- Lead developer for Atlas's C# .NET Framework applications
- Provided technical support for Atlas's core products, plugins, and hosted services
- Researched and developed automated workflows for Development and IT processes

Software Developer I - Quick Response Team (QRT)

Aug 2016 - Dec 2016

Ferguson Enterprises, Inc. - Ferguson IT

5 months

- Provided tier-3 technical support to IT staff and warehouse employees
- Researched problems with in-house WMS, developed in uniBasic
- Resolved issues with production data, through direct database queries

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Education

Georgia Tech (Georgia Institute of Technology) - College of Computing

August 2022 - Currently Enrolled

M.S. Computer Science (OMSCS)

Currently pursuing an M.S in Computer Science through Georgia Tech's online masters program (OMSCS)

Christopher Newport University

August 2011 - May 2016

B.S. Computer Science, Computer Engineering

cum laude, 3.57 GPA

CNU Honors Program

Vice President, *Upsilon Pi Epsilon*, CS Honor Society

PCSE Lab Assistant and CS Tutor

Certifications

Microsoft - Programming in C# (Exam 70-483)

April 2017

(ISC)² - Certified Secure Software Lifecycle Professional (CSSLP)

Volunteer Experience

Software Development and DevOps Volunteer

March 2021 - November 2023

Code4Cville

Web scraping, data engineering, NLP+ML, DevOps, consulting

Participated in a sentiment analysis project over a collection of public comments, all pertaining to a new guidance put forth by Virginia's executive branch

Participated in community projects for Code4Cville's pro-bono consulting division

Served as an Oracle Cloud administrator for various teams and projects

Mitigated cloud security concerns for Code4Cville's Oracle VPC and Linux instances

Managed a Jupyterhub instance for ongoing data science projects

Internship Experience

Intern - Preserving and Analyzing Airborne Science Observational Data Project

Jan 2016 - Jun 2016

NASA Langley Research Center

6 months

Worked with NASA data scientists to improve ICARTT data merge process

Developed an XML schema to configure data merge process

Incident Response Intern - Swisslog STAR Team

Jun 2015 - Sep 2015

Swisslog Logistics - Swisslog Warehouse and Distribution Services

4 months

Provided technical support to Swisslog clients

Project Manager - CNU Mobile Applications Development Team

May 2013 - Aug 2014

Information Technology Services - Christopher Newport University

1 year, 4 months

Developed CNU's first official mobile application using Telerik AppBuilder (HTML, JS, CSS)

Skills

Programming - Python, Kotlin, Golang, Typescript/Javascript, C# (.NET Core), SQL, HTML/CSS, Lua, F#, Java

Tools - Git, Terraform, Docker/Containers, Linux, Markdown, Bash/Zsh, Packer, VSCode, PyCharm, IntelliJ

Infrastructure - PostgreSQL, TimescaleDB, RabbitMQ, Kafka, Kafka Connect, RabbitMQ, Prometheus, Docker

Service Providers - AWS, Aiven, Auth0, GitLab, GitHub, Azure, Linode, Digital Ocean, Oracle Cloud

Duties Performed - Architecture Design, Code Reviews, Semantic Versioning, Dependency Management, Production Support, Application Forensics, Database Administration, System Administration, CI/CD