Andrew Piper
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HIGHLIGHTS

Full Stack Programming – Extensive knowledge of web application development and architecture. Proficient in creating apps that work on a variety of operating systems and form factors. Experience with Git, C#, C++, TypeScript, CSS, HTML, Node.js, ASP.Net MVC, ASP.Net Core MVC, WinForms, Linux, Windows, REST, JSON, XML, MongoDB, SQL Server, SqLite and MySQL and Microsoft Azure.
Architecture – .Net Core MVC, and microservices.
IAC / DevOps - Kubernetes, Docker, Rancher, GitOps, Azure DevOps, Powershell, Azure CLI.
Communication – Strong written communication skills including detailed documentation of projects and proficient at one on one and group mentoring.
Research Skills – Excellent ability to research and implement new algorithms or programming techniques. Strong commitment to professional development thru regular research of emerging technologies and new integrations.
Security Oriented Mindset – Strong security focused mindset across all environments, including: https, content security policies, correct use of http verbs to help prevent xss attacks, cors, and a preference for languages and libraries that do proper html and sql escaping by default. Also experienced implementing NSA/CISA Kubernetes hardening guidelines.

PROFESSIONAL EXPERIENCE

Threax Software
July 2024 - Current
Game Director

- Shipped game "Anomalous Adventure" on Steam on August 7, 2024.
- "Anomalous Adventure" is a procedurally generated RPG written on a custom c#/c++ engine based on the technology in "Anomalous Medical".
- Graphics are rendered using ray tracing instead of traditional rasterization methods. Method is optimized enough to run at playable frame rates on the Steam Deck and other low-end hardware supporting ray tracing.
- Local Stable Diffusion via Automatic1111 was used as an assistant for graphics production.
- UI was written in a custom immediate mode gui called SharpGUI.
- Created automated process to upload game builds to Steam.
- Code base is open source on GitHub.
- Did non-code work such as establishing a corporation, marketing, creating trailers, writing copy and contacting gaming influencers for promotion.
- Currently working on a new, unannouced project using Unreal Engine.

AgileThought - PwC
October 2023 - June 2024
Sr Developer II

- Created api and application using Typescript, NodeJS, MongoDB and Sharepoint.
- Imported a high volume of data in the hundreds of millions of records.
- Application was deployed to existing Kubernetes cluster.
- IAC was written to facilitate local end-to-end testing including setting up all resources.
- Implemented NSA/CISA recommended security hardenings including non-root users, immutable file systems, selinux, seccomp and network policies.
- When issues arose I fostered a blame-free environment to fix them. This was so effective

other teams double checked their code of their on volition and they found and fixed bugs that were impacting our system.

AgileThought - Tranact
Jan 2023 – October 2023
Sr Developer

- This project was so successful the owner of this company told me directly "You saved my company."
- Created IAC using C# and .Net to run a new version of their application using Docker, Kubernetes, SQL Server and blob and disk-based storage both in Azure (AKS) and On-Prem (K3s). This was a complete automation of deployments to both environments.
- IAC was containerized, which made it easy to deploy application versions along with the required infrastructure. This allows control over what version is deployed and ensures the environments are setup correctly.
- Created CI/CD pipelines to build the application. Nightly testing was done of both infrastructure setup and application smoke testing.
- This method has scaled hundreds of deployments across both company and customer owned clouds and various on-prem instances.
- Implemented NSA/CISA reccomended security hardenings including non-root users, immutable file systems, selinux, seccomp and network policies.

AgileThought - Kirkland and Ellis
June 2021 – December 2022
Sr Developer

- Reduced weekly Saturday deployments from 4 hours down to 15 minutes. In my tenure on this project only 1 deployment failed and this failure would have worked itself out eventually thanks to Kubernetes.
- Reverse engineered and fully automated manually created infrastructure for on prem Kubernetes. Original engineers had left the project taking knowledge with them.
- Created fully automated simulated on prem environment provisioning in Azure. New environments could be provisioned in 30 minutes. Environments could also be cloned from snapshots, and multiple instances of any given environment could be run at the same time.
- GitOps workflow with infrastructure as code written in C#. This was integrated with Azure Devops pipelines and releases. Also created a fully automated pipeline to test this code that was used to verify each change to the infrastructure.
- IAC covered the build machines and other vms and infrastructure in addition to the primary environments.
- Kubernetes clusters were Rancher Kubernetes Engine (RKE) 1.0 on Red Hat 8. Besides the application we used MinIO, Postgres, RabbitMQ, Redis, Elastic Cloud for Kubernetes (ELK) and Linkerd.
- Implemented NSA/CISA reccomended security hardenings including non-root users, immutable file systems, selinux, seccomp and network policies.

AgileThought - Centricity
March 2021 – April 2021
Sr Developer

- Created fully automated DevOps infrastructure in C# for Azure and Azure DevOps.
- The system took a single configuration file and created both Azure Resources like Webapps and Databases as well as Azure Devops build and release pipelines. All configuraton is automated.
- Most secrets like connection strings were fully managed and randomized. Other secrets that had to be handled manually still had a system to manage entering them into vaults

and tracking them in the config.

AgileThought - PwC
August 2020 – January 2021
Sr Developer
- Worked on both front end and back end for a financial transaction processing system.
- Back end was .Net Core 5.0 MVC with EF core.
- Front end was an Angular app using Angular and NgRx. I worked on several different pages here.
- Implemented a cross platform solution for connecting to Active Directory using Novell.Directory.Ldap.
- Did some work on creating the Azure DevOps pipelines for the new version we were working on as we got it started. These were deploying to standard VMs with Sql Server installed on a different set of VMs all in Azure.

AgileThought – Deloitte
July 2019 – May 2020
Sr Developer
- Worked as a Developer on a DevOps team.
- Designed and implemented a program to manage pipelines in Azure DevOps for 50+ microservices. Got all microservices on standardized pipelines, which made troubleshooting and maintenance easier.
- Implemented build agents by composing docker images together instead of needing to install all the software on the host or needing an uber docker file. This would separate out each dependency into its own container which could be pulled onto the agents at will. Build servers were simpler requiring only docker and a couple of utilities. All complex software, frameworks etc. came through in images.
- Provided build debugging and troubleshooting. I was able to tell quickly when an issue fell on the DevOps team or if it needed to be kicked back to development. This is due to my extensive development background.

St Petersburg College
March 2016 – July 2019
Sr Web Analyst/Programmer
- Introduced and championed modern development practices including git, continuous integration and continuous deployment. This is all managed with Azure DevOps.
- Designed and implemented a new framework using ASP.NET Core, EF Core and MSSQL Server, to standardize development and modernize legacy applications.
- Designed a microservices architecture to improve flexibility of app deployments. This was very helpful transitioning to the cloud.
- Created extensive written documentation of new systems and processes.
- Collaborated with peer programmers to identify improvements in the development environment.

Anomalous Medical
June 2008 – January 2016
Project Manager/Programmer
- Designed and implemented 3D game engine in C# and C++ to display medical simulations.
- Implemented software virtual texturing to load uncompressed high-resolution textures on devices with limited resources.
- Ported from Windows to Android, iOS and Mac OS.
- Designed and implemented web site and e-commerce to support this software using

Asp.Net MVC and Azure SQL.
- Oversaw multi-disciplinary team consisting of myself in programming, a 3D artist, and a sales and marketing person. Hired programming interns throughout the project as well
- Interacted with medical professionals as subject matter experts to ensure the accuracy of and improve the general usage of our software.
- Open sourced in April 2019 on GitHub.

Rome Laboratory
June 2007 – September 2007
Software Engineer Co Op
- Updated ORM layer for a base security program written in Java.

Goodrich ISR Systems
March 2006 – August 2006
Software Engineer Co Op
- Created debugging tool in Java to view telemetry data from spy plane cameras.
- Created a separate debugging tool in Java to view image sensor data from spy plane cameras in real time.

EDUCATION

B.S. in Software Engineering from Rochester Institute of Technology　　　　　May 2008