

## Staff/Principal Software Engineer

With expertise in multiple programming languages spanning frontend and backend development, I've spearheaded the design and implementation of numerous features, collaborating seamlessly with diverse teams to ensure successful project delivery. Passionate about mentorship, I've enjoyed guiding others through their career journeys, fostering a culture of learning and growth. Now seeking a dynamic environment where I can continue to expand my skills and contribute to impactful projects, I'm eager to join a team that values innovation and offers opportunities for personal and professional development.

### Experience

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#### Senior Member of Technical Staff – Broadcom Inc. (formerly VMware)

June 2023 – Present

- Created validation tool to ensure successful synchronization of data between two distinct systems, uncovering several major issues that were able to be fixed before a production release.
- Identified potential security and other issues when reviewing designs for new features and capabilities.
- Work with teams to help identify root cause of bugs occurring in production and QA environments.

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#### Senior Software Engineer – Meta Platforms, Inc.

March 2022 – June 2023

- Noticing that documentation was severely lacking for internal Bloks scripting framework, organized a hackathon to fully document all scripting functions. Additionally created a tool that would import the inline documentation from source code and format it into our wiki, similar to Javadoc and other documentation generators.
- Worked with other internal teams that used Bloks framework to identify improvements that could be made to it.
- Implemented internal A/B testing framework with Bloks with the involvement of A/B testing framework team.
- Improved and cleaned up several aspects of Bloks build processes.

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#### Software Architect – NCR Corporation

July 2019 – March 2022

- Managed workload of SRE team consisting of 20 developers, and as a whole managed the entirety of infrastructure for the Business Support Platform, which is the backend for third-party services such as GrubHub.
- Orchestrated cloud migration from Amazon Web Services to Google Cloud Platform within the Business Support Platform.
- Worked with other internal business units to aide their transitions to GCP in addition to providing general help and advice.
- Created terraform modules to standardize deployments across the Business Support Platform.
- Created several tools and frameworks to improve and automate internal processes.

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#### Technical Lead – NCR Corporation

July 2018 – July 2019

- Lead development of the NCR Developer Experience (developer.ncr.com) which primarily allows developers to view documentation of NCR APIs and administrators to manage their organizations within the platform. It additionally allows configuration of several internal aspects of the platform.
- Worked with other development teams to ensure their needs are met and ensuring functionality we need from them is available.
- Helped team members by providing individualized or group help and holding informational meetings covering various topics.

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#### Senior Software Engineer – Tin Roof Software (contractor for NCR Corporation)

December 2017 – July 2018

- Developer on the NCR Developer Experience development team. See Technical Lead position above for more details.

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#### Application Architect – TalentQuest (Corporate Psychology Resources, Inc.)

February 2015 – December 2017

- Lead several internal development teams consisting of a total of around 50 developers distributed between the US and India.
- Created and reviewed technical design documents for new features and capabilities.
- Orchestrated user interface redesign project which included migrating from ASP.NET MVC to Angular.
- Optimized various aspects of application to improve performance on the backend and frontend.
- Helped team members by providing individualized or group help and holding informational meetings covering various topics.

Other positions held during tenure: Technical Lead, Senior Software Engineer.

**Team Lead** – Rev.ioAugust 2009 – February 2015

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- Lead 3-person professional services development team that regularly billed around \$50k per month.
- Worked directly with customers for requirements gathering, training, as well as general help and problem solving.
- Ensured development commitments made to clients were reasonable and were able to be completed on time.
- Created technical design documents for new features and capabilities.
- Regularly worked on integrations with third-parties including telephone carriers (Verizon, AT&T, etc.) and payment gateways.
- Handled various system administration tasks including managing internal applications and phone systems.

Other positions held during tenure: Senior Software Engineer, Software Engineer, Intern.

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**Education**

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**Master of Science in Computer Science / Software Engineering**

December 2015

University of West Florida – Pensacola, FL

**Bachelor of Science in Computer Information Systems**

May 2010

University of West Florida – Pensacola, FL

**Associate of Arts in General Studies**

May 2008

Northwest Florida State College – Niceville, FL

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**Open Source Contributions**

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**Tailscale**Project URL: <https://github.com/tailscale/tailscale>

Language: Go

Fixed obscure bug resulting in DNS being lost with certain configurations on Linux.

**Jellyfin**Project URL: <https://github.com/jellyfin/jellyfin>

Language: .NET Core, C#

Fixed legacy SiliconDust HDHomeRun implementation for LiveTV.

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**Personal Open Source Projects**

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**Ham DB**Project URL: <https://github.com/ryanpetris/ham-db>

Language: Python

Application to provide an API for looking up Amateur Radio licenses. Data is synchronized daily with the US FCC and Canadian ISED amateur radio databases, along with DMR and NXDN IDs from radioid.net. A reference deployment is located at <https://api.hamlocator.com/>.

**AUR Builder**Project URL: <https://github.com/ryanpetris/aur-builder>

Language: Go

Helper to track and build AUR packages for the Arch Linux distribution.

**DNS-Sync**Project URL: <https://github.com/ryanpetris/DNS-Sync>

Language: Python

Enables synchronization to/from a standard zonefile and dns provider or between dns providers.

**IgnoreFS**Project URL: <https://github.com/ryanpetris/ignorefs>

Language: Python

FUSE filesystem that is essentially a bind mount with the ability to ignore files using .gitignore style syntax.

**IOT Director**Project URL: <https://github.com/ryanpetris/IOT-Director>

Language: .NET Core, C#

Talks to Arduino Devices programmed with IOT Director – Arduino to get digital and analog sensor data as well as controlling relays. This information is then used to talk to an MQTT server that interfaces with HomeAssistant. This is ultimately used to interface with door and window sensors, smoke alarms, motion detectors, and devices that need a simple on/off signal such as sirens.

**IOT Director – Arduino**Project URL: <https://github.com/ryanpetris/IOT-Director-Arduino>

Language: C

The Arduino component of IOT Director. Requires an Arduino with an ethernet shield.

**HdhrProxy**Project URL: <https://github.com/ryanpetris/HdhrProxy>

Language: .NET Core, C#

Proxies requests to legacy SiliconDust HDHomeRun devices to allow channel scanning and channel listing capabilities bypassing the use of SiliconDust's online services.

**Disposamail**Project URL: <https://github.com/ryanpetris/disposamail> <https://github.com/ryanpetris/disposamail-ext>

Language: NodeJS/JavaScript

Software to create a disposable email address ala Guerrilla Mail, Mailinator, etc. There are two versions: one that uses an internal SMTP server to receive mail, and another that uses an external services such as Mandrill.