

## Software Development Lead/Architect

Experienced software development technical lead and architect ready to take on a major new role. I have spent my entire development career learning and growing in my field, and am looking for a development team where I can continue to learn and grow as well as impart my knowledge and experience onto others.

### Career Highlights

- **Architected and managed cloud migration of NCR's Business Service Platform from AWS to GCP.** The platform provides backend services for businesses such as GrubHub across the United States as well as Europe and Asia fulfilling hundreds of thousands of transactions per day.
- **Architected and managed ongoing conversion of application at TalentQuest from ASP.NET MVC to Angular.** TalentQuest provides a business-critical HR application used by hundreds of organizations across the United States.
- **Optimized sections of applications to improve performance and throughput,** sometimes with improvements of an order of magnitude or more.
- **Ran professional services department that regularly billed up to \$50k per month in development costs for a team of 3 developers.** During a period of deficit spending for growth, this allowed the Rev.io to not borrow as much to attain growth goals. Rev.io provides telecom billing services for hundreds of clients across the United States and handles hundreds of thousands of call records per day.

### Experience

**Software Engineer (IC-5, Senior-level)** – Meta Platforms, Inc.

March 2022 – June 2023

Primarily developed an internal framework called Bloks, which allows server-side definition of client application logic that enables backend developers to write client-agnostic interfaces that are updatable in real-time.

Technologies Used: Hack/PHP, React (+HTML/CSS), Python, Markdown, along with several Meta internal technologies.

- Highlights
- Worked internally with other teams to identify and fix problems within the framework and to improve the framework.
  - Improved schema build process to reduce amount of data transfer and make more reliable.
  - Integrated internal A/B testing framework into Bloks, requiring collaboration with the A/B testing framework team to implement features required for Bloks to integrate with it.
  - Improved documentation by automating import of inline code documentation into wiki.

**SRE Architect** – NCR Corporation

July 2019 – March 2022

Oversaw SRE team, consisting of around 20 people, that managed the cloud infrastructure for NCR's Business Service Platform which served business such as GrubHub fulfilling hundreds of thousands of transactions per day. Helped development teams consisting of around 100 people with best practices, deployment pipelines, dockerizing their applications, as well as general issues.

Technologies Used: Python, Bash, PostgreSQL, Git, Kubernetes, Docker, Helm, Redis, and ElasticSearch. Also worked with several GCP cloud services such as Google Kubernetes Engine (GKE), Google Compute Engine (GCE), Cloud SQL, Cloud DNS, Cloud Functions, VPCs, and IAM.

- Highlights
- Architected and managed cloud migration from AWS to GCP, and advise/help other business units with their migrations.
  - Created terraform modules that abstracted the finer details of GCP from DevOps developers on development teams to standardize environments and allow teams to get up and running as quickly as possible.
  - Created "slackbot" from scratch to allow use of rich forms in Slack as well as a possible future migration to Microsoft Teams. Ultimately this was used to allow several workflows to be completed entirely from slack, including ticket creation and approvals for deployments.
  - Created framework that reaches out to various external systems in parallel to gather statuses for deployment readiness, such as checking code scanning results, uptime, and other factors.
  - Provided technical guidance both internally on the SRE team as well as to other development teams within NCR.
  - Worked with other business units with their migrations into GCP

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**Technical Lead** – NCR CorporationJuly 2018 – July 2019

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Oversaw development of the NCR Developer Experience ([developer.ncr.com](https://developer.ncr.com)), which allows developers to view documentation of NCR APIs as well as management of their organizations within the platform. There additionally is an internal interface to allow NCR administrators to manage the platform.

The NCR Developer Experience team consisted of 6 developers and a product owner.

Technologies Used: .NET Core (2.0-2.2), C#, Angular (5-7), TypeScript, CSS (SASS), HTML, PostgreSQL, xUnit, Git, Kubernetes, Docker, Helm, Bash, Python, Redis, and ElasticSearch.

**Highlights**

- Performed regular Agile development duties such as daily standups, code reviews, grooming sessions, commitments, and end-of-sprint demos.
- Provide technical guidance during grooming sessions, commitments, on complex work items, etc.
- Help team members by providing individualized or group help when needed as well as holding informational meetings to go over complex topics.
- Track down difficult to find or reproduce problems via local debugging and/or logical analysis of application source code.

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**Senior Software Engineer** – Tin Roof Software (contractor for NCR Corporation)December 2017 – July 2018

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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

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Oversaw development of TalentQuest's self-named application, which is an application primarily used by HR departments to conduct HR-related activities such as behavioral assessments, performance management, performance reviews, compensation reviews, etc. TalentQuest is used by hundreds of organizations across the United States to manage their employees.

At its height, the TalentQuest development team consisted of two US-based teams of 3 developers (including the team lead) and two QA engineers, along with four India-based teams of similar size.

Technologies Used: .NET (legacy, 4+), C#, ASP.NET MVC, ASP.NET WebAPI, Angular (1-4), TypeScript, CSS (SASS), HTML, Microsoft SQL Server, xUnit, Git, TFS.

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

**Highlights**

- Oversaw user interface redesign project which revamped the look and feel of the application as a whole. This was done in phases and with toggles such that the new interface could be enabled and disabled at will.
- Create technical design documents for new features to be implemented by the development teams.
- Rewrote backend of compensation appraisal calculation engine to improve performance.
- Optimize user interface to increase site responsiveness as well as to implement accessibility requirements.
- Integrate Angular 1.x (later upgraded to Angular 4) and WebAPI into existing ASP.NET MVC application.
- Performed regular Agile development duties such as daily standups, code reviews, grooming sessions, commitments, and end-of-sprint demos.
- Provide technical guidance during grooming sessions, commitments, on complex work items, etc.
- Help team members by providing individualized or group help when needed as well as holding informational meetings to go over complex topics.
- Track down difficult to find or reproduce problems via local debugging and/or logical analysis of application source code.

**Team Lead – Rev.io**

August 2009 – February 2015

Oversaw development of Rev.io's self-named application, which provides telecom billing services to hundreds of companies across the United States. It includes most functionality a telecom company would need, from call rating, billing customers, allowing customers to make payments, automated top-ups of wireless minutes, etc. Rev.io processed hundreds of thousands of billing and rating events per day, with a subset of those events needing to be processed in real time (for instance to cut off service once a user reaches their minute allotment).

The development team at Rev.io consisted of around 8 developers.

Technologies Used: .NET (legacy, 1-4+), C#, VB.NET, ASP.NET Web Forms, JavaScript, jQuery, CSS, HTML, Microsoft SQL Server, NUnit, Git, SVN.

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

**Highlights**

- Lead professional services team that regularly billed around \$50k per month in revenue with a development team consisting of 3 people.
- Worked directly with customers to gather requirements and to train them on new features that were implemented. Also worked directly with customers to solve problems they may be having as well as identifying workarounds while fixes were being developed.
- Ensure that development commitments made to clients were reasonable and completed on time.
- Create technical design documents for new features to be implemented by the development teams.
- Help team members by providing individualized or group help when needed as well as holding informational meetings to go over complex topics.
- Track down difficult to find or reproduce problems via local debugging and/or logical analysis of application source code.
- Regularly worked with third-parties for integration, such as with carriers (Verizon, AT&T, etc.) and payment gateways (Authorize.Net, Stripe, PayPal, etc.)
- Handled various system administration tasks such as general Windows and Linux administration, Microsoft SQL Server, IIS, third-party application hosting such as Jira, Confluence, etc., as well as the office phone system and provisioning of Cisco phones.

**Education****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

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

Fixed legacy SiliconDust HDHomeRun implementation for LiveTV.

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## Personal Open Source Projects

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### 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>

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>

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>

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

### HdhrProxy

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

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.

## Skills

This is a non-exhaustive list of skills primarily to address anything that may have been missed in the Experience section, or minor things that weren't worth mentioning there. If you're looking for something specific and it's not listed here, please check with me before assuming I don't have it.

### Programming Languages

- **C#:** 11 Years
- **CSS (+SCSS, LESS, etc.):** 15 Years
- **EDI:** 6 Years
- **HTML:** 15 Years
- **JavaScript:** 14 Years
- **JSON:** 14 Years
- **Markdown:** 14 Years
- **NodeJS:** 6 years, including NPM
- **PHP:** 1 Year
- **PowerShell:** 10 Years
- **Python:** 6 Years, including PIP
- **Ruby:** 3 Years, including Rails, RubyGems
- **Shell Scripting (BASH, ZSH, etc.):** 6 Years
- **SQL:** 14 Years
- **TypeScript:** 8 Years
- **VB.NET:** 6 Years
- **XML:** 6 Years
- **XSLT:** 6 Years
- **YAML:** 8 Years

### Frameworks

- **Angular:** 8 Years
- **.NET/.NET Core (aka dotnet):** 11 years, including NuGet, ASP.NET, ASP.NET MVC
- **jQuery:** 14 Years
- **React:** 1 Year

### Job Aspects

- **Agile:** 8 Years
- **Customer/Stake Holder Interaction:** 14 Years, Interacting directly with customers and stakeholders; explaining technical details in terms they understand and extracting information about what they actually want rather than what they say they want.
- **Debugging:** 14 Years
- **Drafting Design/Technical Documents:** 10 Years
- **Interviewing Candidates:** 10 Years
- **Team Leadership (Technical):** 10 Years, have been lead of teams and teams of teams; varying from 2 to 20+ persons.

### Tools/Applications

- **Apache HTTP Server:** 10 Years
- **Docker:** 7 Years, including Podman, OCI Containers
- **Git:** 14 Years, including Github, GitLab, Stash/BitBucket, and other Git hosting services.
- **HAProxy:** 10 Years
- **Helm:** 4 Years
- **IIS:** 10 Years
- **Kubernetes:** 4 Years, self-hosted (OpenShift) and GCP GKE
- **Jenkins:** 10 Years
- **JetBrains IDEs:** 8 Years
- **Memcached:** 3 Years
- **Microsoft SQL Server:** 9 Years
- **MongoDB:** 3 Years
- **MySQL:** 6 Years, also MariaDB
- **Nginx:** 10 Years
- **OpenVPN:** 10 Years
- **PostgreSQL:** 6 Years
- **Redis:** 3 Years
- **SSIS:** 3 Years
- **SVN:** 3 Years
- **Terraform:** 4 Years
- **TFS:** 3 Years
- **Visual Studio:** 10 Years
- **Visual Studio Code:** 6 Years
- **Webpack:** 6 Years

### Other

- **Cloud Services (GCP, AWS, etc.):** 6 Years
- **Continuous Integration and Delivery:** 14 Years
- **Dependency Injection:** 8 Years
- **End-to-End Testing:** 14 Years
- **Linux System Administration:** 10 Years, including RedHat, Ubuntu, Debian, Alpine, NixOS, and Arch.
- **RESTful Web Services/APIs:** 8 Years, including Swagger/OpenAPI
- **SOAP Web Services/APIs:** 6 Years, including WSDL
- **Unit Testing:** 14 Years, including NUnit, xUnit
- **Windows System Administration:** 10 Years