Andrew Willette

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I am Software Engineer with over 6 years of experience developing production software, using technologies including Java, Go, and C# web services, React front-ends, and cloud-hosted deployment strategies. I am passionate about building and delivering clean, well-tested, and easy-to-maintain software solutions that satisfy business needs.

Experience

Kunai - Senior Software Engineer 2022 (Present)

- Contracted with Capital One, implementing Golang cloud solutions to modernize their core financial platforms.

Cerner - Software Engineer II - Identity and Access Management : 2017 - 2022

- Built a React Single Page Application(SPA), currently hosted at login.cerner.com, which manages Cerner users from any client(and consequentially identity provider) through a login workflow which integrates them into Cerner's Single-Sign-On ecosystem.
    - Frontends built using Cerner's open-source terra React components.
    - Redux "backend" for the SPA frontend.
    - Wrote client javascript code for consuming Cloud IAM REST API's for managing the login workflow.
    - Wrote client javascript which consumed GraphQL endpoint, allowed for large, flexible use cases related to selecting a client, tenant, and application.
    - The result of a valid application selection is a redirect to the proper identity provider, where a valid login sends the user to their desired client's environment, and triggers persistence in Cerner's Session Management cloud solution.
- Added support in enterprise User Roster, a solution for representing users from all identity providers in one Cerner-managed cloud location, for inactive users. Allows for persistence of old account resources rather than deleting them.
    - Passively updated oracleDB schema to include active column.
    - Updated authorization model of existing OAuth web services to insure inactive accounts could not utilize services.
    - Updated front end User Interface for managing enterprise users to allow for displaying inactive users in their own respective table. This involved JSP frontends and custom CSS.
- Updated Cerner's solution for managing OAuth 1.0a accounts to allow for an authentication workflow utilizing JSON Web Tokens.
    - Updated the account UI page to allow for registration of a JSON Web Key Set, this is a public-key representation of a asymmetric cryptography implementation, where the respective private key is used to sign JSON Web Tokens, allowing for authentication.
    - Wrote the Spring Controller handling jwt signature assertions, utilizing the open-source nimbus-jose-jwt library.
- Updated Cerner's solution for managing OAuth 1.0a accounts/credentials to allow for automatic(non-human vetted) creation of lower-privileged accounts via REST APIs.
    - Wrote Java Spring Rest API Controllers for managing/validating requests to create new lower-privileged accounts.
    - Passively updated oracle database schema to allow for more extensive authorization model with lower-privileged accounts.
    - Updated the front-end management User Interfaces for the accounts to display them properly with lower-privileges. This involved pages generated with the JSP java technology and custom css.
- Manage the development and release of 5 different cloud-hosted solutions.
    - Each solution has a Packer and Terraform configuration for AWS representation.
    - Amazon Machine Images(AMIs) are created and managed via Chef Infrastructure.
    - Java artifacts are released into corporate Maven repository.
    - npm artifacts are released into corporate npm repository.
    - Continuous deployment of new AMIs into AWS are managed via a jenkins instance. I have extensive experience

debugging issues in this environment.

- Uplifted Cloud IAM's jenkins solution to be hosted in AWS.
  - Master and slave nodes have custom Packer and Terraform configurations for representation in AWS
  - The logic for creating and managing jenkins jobs was accomplished via jenkins native support for groovy scripting and aws client libraries.
  - Wrote groovy shutdown hooks to unmount jenkins master EBS volumes prior to shutting down the instance, allowing for persistence of jenkins jobs data.
- Implemented a client-side Typescript library for managing a user's authentication state in browser Single Page Applications.
  - Consumed by clients which rely on Cerner's single sign on ecosystem, with the library's APIs exposed via npm package import.
  - Allows consumers to configure their applications with particular identity providers in Cerner's ecosystem, wherein the client library triggers logins, session locks and other session management utilities via REST requests, with client cookies, to Cerner's Session Management and Authorization Management web services.
- Implemented a variety of logging frameworks and patterns.
  - Install, configure and use logs from new relics java agent.
  - Install, configure, and use logs from Splunk. Used Cerner's open source solution splunk-pickaxe to write custom Splunk alerts as code. The resultant alerts are emailed to our Scrum's Teams channel.
  - I make thoughtful decisions when configuring java's logback framework to allow for effective troubleshooting in Splunk.

GOM Software International - Software Engineer : Agricultural Feeding, 2018 - 2020

- Designed and implemented complex matrix in tables in knockout.js to update feeding information for livestock.
- Implemented Braintree online payment system using the Braintree .net SDK, allowing for collecting credit and debit cards for a scheduled payment processing plan.
- Extended Microsoft SQL Server schema for managing livestock feeding data, such as "Dry Matter Percentage" present in food fed to cattle.
- Implemented Dotnet's role-based authentication.

Fiddling Technologies - President : 2017 - 2022 (Present)

- Personal website built on Golang rest API server and Typescript React Single-Page-Application front-end.
- Managed and played violin around Kansas City area, primarily small restaurants and outdoor markets.

Skills

`java` `golang` `typescript` `AWS` `Terraform` `Packer` `docker` `oracleDB` `css` `sqlite` `intellij idea` `neovim` `ubuntu` `RHEL` `Spring` `JAXRS` `Hibernate` `Tomcat` `JSP` `Spock` `New Relic` `Splunk` `markdown`

Education

- University of Iowa, 2014 - 2018
  - Bachelor's Degree: Computer Science
  - Bachelor's Degree: Violin
  - 3.8 GPA