Ryan Thomas Allen

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WORK EXPERIENCE

Applied Predictive Technologies (APT)   Washington, DC

Web-based financial analytic software company. Acquired as indep. subsidiary by Mastercard (2015).

Senior Software Engineer - **Analytics** growth product team   July '16-Present

- Developed a Mastercard data exploration product, the first service fully built upon MC data in APT
- Primarily aided with the 'Calc' engine (C# & SQL) built for high performance aggregations of large financial datasets and algorithmic caching to preserve results efficiently across users and requests

Software Engineer - **Architecture** team   August '14-July '16

- Aided development of the micro-service oriented architecture upon which the APT web-platform is built (C# .NET and SQL server-side; HTML, CSS, and Javascript for web)
- Built core applications consumed by all product teams, such as
  o JobQueue - a distributed calculation system for invoking, tracking, and canceling long running in-memory (C# and R) and database (SQL Server) 'jobs' across servers
  o Exceptions - app for reporting, tracking, and alerting of errors throughout the product
  o Auth & Login - apps responsible for security and granting of access to the platform

McKesson Automation Corporation   Mars, PA

Software Engineering Intern I & II   Summer '12 & '13

- Designed med packaging hardware control - API written in C# .NET, integrated into an ASP Web API local service, and controlled via McKesson's Supply Chain Web solution with ASP MVC

PERSONAL PROJECTS

Jukebox (https://www.playjuke.com)   Jan. 2017

Co-creator (HTML, CSS, JavaScript, NodeJS, Java for Android, Objective-C for iOS)

- Web platform for collaboratively building and sharing playlists on any device (via Spotify SDK & API). A host device plays music while others add and vote on songs to be played next.
- Implemented with Meteor's Blaze framework using NodeJS on server plus native Android & iOS apps, and hosted on AWS.

Minesweeper Solution Analyzer (github.com/rallen090/MineSweeperAnalyzer)   Dec. 2016

Creator (C#, Java, Python, NodeJS)

- Native desktop app for analyzing and visualizing programmatic solutions to the game Minesweeper
- App invokes a 'solver' implementation process of a supported language and runs N trials of the game
- Used for personal interview question for APT candidates tasked to implement a 'solver' algorithm

Web Terminal (http://ryanallen.io - github.com/rallen090/WebTerminal)   Nov. 2016

Creator (C# .NET MVC, HTML, CSS, Javascript)

- Web-based command-line terminal implementation (hosted on Azure)
- cd fun

EDUCATION

THE UNIVERSITY OF VIRGINIA – SCHOOL OF ENGINEERING AND APPLIED SCIENCE   Charlottesville, VA

Bachelor of Science, Computer Engineering   May 2014

Minor in Engineering Business

GPA: 3.7/4.0

MISSION CRITICAL SKILLS

- **Primary:** C#, SQL, NodeJS, HTML, CSS, JavaScript; **Secondary**: Java, Python, C++, C, Objective-C;
- StarCraft II - Masters League (18 seasons) - http://us.battle.net/sc2/en/profile/429676/1/AceElite/