# **Nicholas Caurvina**

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### **SUMMARY OF QUALIFICATIONS**

Six years of professional experience developing robust, scalable, and intuitive code. A passionate, results-driven, and pragmatic developer who appreciates building quality software to meet business needs. Supportive and empathetic team player who prizes the users in mind. Believes that security and testing are necessary components of the development process.

# **EMPLOYMENT**

Software Engineer

Microsoft AI & R June 2018 - Present

- Polyglot team that builds big data pipelines for real time data processing and analysis
- Current tools:
  - o Scala, .NET Core, Python, Java, Kotlin
  - o Apache Spark, Druid
  - o Azure EventHubs, Storage, Functions, Web apps, VMs, Service Fabric, CosmosDB)
  - MongoDB
  - o OpenAPI

Software Engineer II

HealthEquity

September 2016 - June 2018

- Created tools to detect fraud and facilitate fraud teams to prevent fraudulent payments from being actualized
  - o Responsible for savings tens of thousands of dollars in fraud per month
- Designed and implemented a distributed message-based system to actualize movement of millions of dollars between bank accounts using NServiceBus and RabbitMQ
  - Created the HealthEquity standard for the Saga pattern which is actively used by several other teams
- Developed an event driven system responsible for maintaining tax forms in real time for over 3 million users
  - o Worked with various teams to coordinate effort and deliver on schedule
  - Saved hundreds of business operation hours every month
- Configured continuous integration pipeline to increase overall team velocity
  - Implemented with git, TFS 2017, and Octopus deploy
  - Supports the running of integration tests with automatic rollbacks if needed
- Served as an application security specialist for financial systems
  - Implemented HP Fortify as a static and dynamic scanning tool to identify OWASP vulnerabilities
  - Utilized as a technical expert during the resolution of security bugs

Delta Health Technologies

November 2014 - September 2016

- Designed and implemented offline-first data collection modules with WPF and C#
  - Automatically cached all necessary data for a home health care clinician to perform various visits with their patients
  - o Allowed the clinician to record the entire visit offline using SQLite and TinyDB
  - Supported uploading via Open Ria services and reconciliation of data with automatic conflict resolution
- Developed a dynamic form module to allow users to generate tailored forms for their agencies
- Created tool to compress images of signatures with an average reduction of size of 90% to reduce download times drastically
- Refactored main home screen to address performance and reduce load times by 95% in the average case

#### Undergraduate Researcher

The Pennsylvania State University, Applied Research Lab

May 2014 - April 2015

- Designed and implemented a real time motion tracking system with live streaming video for Android
  - o Utilized on multiple Android phones as well as Google Glass
  - Was able to transmit real time location, the exact yaw, pitch, and roll of the headset, and a livestream of the camera to a 3d visualization lab

# **EDUCATION**

Pennsylvania State University

2011 - 2015

- Bachelor's Degree in Computer Science
  - State College, PA
- Coursework: Data Structures, Algorithms, Systems Programming, Operating Systems, Distributed Scientific Computing, Programming Languages Concepts

## **TECHNICAL PROFICIENCIES**

- Languages and Frameworks: C#, SQL, NServiceBus, RabbitMq, Moq, Entity Framework, AngularJS, XAML, Bootstrap, Razor, Python, C, C++, HTML5, CSS, Java, Android Developer Toolkit, GDK, Mirror Api
- Tools: Visual Studio, NCrunch, Resharper, MSBuild, Octopus, Loupe, Fiddler, Razorshark, vim