* Proof of recognition for work outside your immediate occupation that has contributed to the advancement of the sector (e.g. evidence that you have gone beyond your day to day profession to engage in an activity that contributes to the advancement of the sector)
* Have undergone continuous learning / mastery of new digital skills (commercial or technical) throughout your career;
* Have demonstrated exceptional ability in the field by making academic contributions through research.

Evidence that I have played an active role in contributing and teaching for the furthering of the developer community:

**Case Study:**

Electronic Surveillance in the Modern World by Jacob Aylward

**Tutorials:**

AWS (Amazon Web Server) Setup Tutorial by Jacob Aylward

Hortonworks – Introducing Apache Hadoop to Developers by Jacob Aylward

Setting Up a Web Server Tutorial by Jacob Aylward

**Contributions to Hadoop:**

How to Analyze Machine and Sensor Data (BIG DATA) by Jacob Aylward

**Contributions to Apache:**

Apache – An Instillation Guide for Installing Apache Server, Windows Virtual Machine with PHP & MySQL by Jacob Aylward

**Notable Contribution on GitHub:**

Software Engineering - Recursive Maze Design by Jacob Aylward, James Champ and Valerie Ehimhen

**Frostburg State University KBS Presentation:**

Knowledge Based Systems presentation by Jacob Aylward

**Contributions to API’s:**

UDP client/server communication api’s

Through my studies and hands on research I’ve obtained a full understanding on how to implement and use the following applications, languages, hardware, frameworks, databases, api’s and systems:

**Symbols**

.NET Security, .NET Web Configuration, .NET development exp, .Net Framework, .Net Programming Asp, .Net Programming C#, .Net Programming C++, .Net Programming Jscript, .Net Programming Visual Basic, .Net Programming Visual J#, ASP.Net

**A**

Actionscript 2.0, Adobe Acrobat, Adobe Framemaker, Adobe Illustrator, Adobe Indesign, Adobe Pagemaker, Adobe Photoshop, Adobe Premiere

Apache, Apache Web Server, Apple Mac, Apple Scripting, Apple Server, Appletalk, Assembly, Assembly Language

**B**

BIG DATA

**C**

C Embedded Systems, C Programming, C Shell, C#, C+, C++, CIS System Configuration, Circuit Analysis, Circuit Board Layout, Circuit Building, Circuit Design, Circuit Elements, Cisco ICE, Cisco Routers, Cisco Switches, Cisco Wireless

Client/Server, Computer Architecture, Computer Maintenance, Computer Measuring Machine, Computer Simulation, Computer Systems, Computers, Cyber Security

**D**

DNS, Data Analysis, Data Entry, Data Integrity, Data Management System, Data Structure, Database Tools, Digital Circuit Design, Digital Logic, Drives

**E**

Eclipse, Embedded Design, Embedded Development, Embedded Programming, Embedded System Programming, Embedded Systems, Encryption Protocols, Exchange, Exchange 2007

**F**

Final Cut Pro, Firewalls, Flash

**I**

IS (Information Systems), Internet Security

**J**

Java, Java 1.4.1\_07, Java Application Developing, Java Architecture, Java Script

**L**

LAN, Linux, Logistics, Lynx

**M**

MS Exchange Server 2010, MS Office 2010, MS Server, MS Windows 7, MS Works, Macintosh, Macintosh Os9, Macintosh Osx, Ms Dos, Ms Excel, Ms Exchange, Ms Front Page, Ms Internet Explorer, Ms Internet Information Server, Ms Office, Ms Office 1997, Ms Office 2000, Ms Office 2003, Ms Office 2007, Ms Outlook, Ms Powerpoint, Ms Sql Server, Ms Visio, Ms Windows, Ms Windows 2000, Ms Windows 95, Ms Windows 98, Ms Windows Server 2003, Ms Windows Server 2003 Enterprise, Ms Windows Vista, Ms Windows Xp, Ms Word, Mysql

**N**

Net Architecture

**O**

Object Oriented Design, Object Oriented Modeling, Object Oriented, Programming, Objective C, OpenOffice, Oracle 10 RAC, Oracle 11,Oracle 8, Oracle AIM, Oracle Application Server, Oracle Sql, Oracle Web Server, Oracle XML Database

**P**

Photoshop, Php, Programming, Proxy, Proxy-Server, Public Key Encryption Systems, Python

**Q**

Q-Basic, Query

**R**

Red Hat, Red Hat Linux 8.0

**S**

STAR Diagnostic Tool, Shell Programming, Shell Scripting, Solaris, Solaris 8, Star Schema

**T**

TCP/IP

**U**

UML, UML Methodology, UNIX Scripts, Unix

**V**

VB.Net, VMC, VMS, VMWare Certification, VMware ESXi, VMware Systems, VPN, Visual Basic, Visual Basic .Net, Visual Basic 2005, Visual Basic 6.0, Visual Basic Programming, Visual Basic Script, Visual C++, Visual J++, Visual Objects, Visual Source Safe, Visual Studio

**W**

WAN, Web Applications, Web Browsers, Web Development, Wireless, Wireless Routers, Wiring Design

**X**

XML,iOS

I have made several academic contributions within my field. Such include teaching a basic understanding of KBS systems to students interested in understanding the early processes of AI. Publishing an academic research article on Recursive Tracing applied to Software Engineering projects. As well as establishing servers to analyze trends within BIG DATA databases for classroom experiments and exercises.