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**Portfolio and Demo Reels: <http://www.duanecash.com>**  
**ThynkWare: <http://www.thynkware.com>**  
**<http://www.linkedin.com/in/duanecash>**

**Patents Pending:**

Individual - Mind-Controlled Virtual Assistant on a Smartphone Device (May 2013): <http://www.google.com/patents/US20150045007>

Honda R&D – 5 Patents Filed (Awaiting Award). 15+ others in various stages of filing/application process since Jan 2013

Visa Innovation Lab – 19+ patent applications filing currently for innovations related to the core technology

USAA - Several patent applications filing for innovations related to blockchain and core insurance technology

**Patent Grants:**

Patent for Method and System of Virtual Gaming in a Vehicle (Pat. No. 9101824) granted on August 11, 2015

Patent for Interactive Vehicle Gaming System and Method (Pat. No. 8939839) granted on January 27, 2015

Patent for Touch-based System for Controlling an Automotive Steering Wheel (Pat. No. 9067618) - June 30, 2015

**Certification:**

Scrum Master - Accredited Certification from the International Scrum Institute (Authorized Certification ID: 86312155367340) on November 30, 2016 - Exam Score of 98%.

**Technical Skills and Tools:**

iOS/iPhone OSX/Cocoa/Objective-C/Swift/Xcode, jQuery, HTML5/CSS3/Javascript, MongoDB, Express, AngularJS, NodeJS, React, QT/QML, QNX, Corona SDK, Lua, Android SDK, Eclipse, JAVA, Pocket PC/ Windows Mobile Smart Device programming, Visual Studio, SQL Server, Java, C/C++, C#, Unity Game Development, GIT, MS Access Database, Excel, NetBeans 6.1, Eclipse, Quick Test Pro/Quality Center, .NET 3.5 framework, Unreal Editor 3.0, UDK, Crystal Reports 2008 and Crystal Reports in Visual Studio 2008, Flash/Flex, XML, XMLSpy, PHP, Unix, VMS, SQL, SQL Server Management Studio, Photoshop, MS Project, MS Visio, CVS, Microsoft Office tools, TeamTrack/Mashups, Maya.

**iPhone development experience:**

- Developed ThynkBot - a mind-enabled robot powered by thoughts: (video at <https://www.youtube.com/watch?v=g6w4CGWHGoi>)
- Developed PhotoCollector – a photo editing prototype app for iOS with NodeJS, Express, MongoDB backend: (video at <https://www.dropbox.com/s/nwsokk0d1e2nw/PhotoCollectorApp.mov?dl=0>)
- Developed MindGear – A Mind-controlled System for Deeper Cognitive Connection with Virtual Assistants: (video at <https://vimeo.com/62224663>)
- Developed and deployed “Dawn – A New Kind of Virtual Assistant” iOS app to the App Store: (<https://www.youtube.com/watch?v=KHC51LYCCss>).
- Developed and deployed “Santa Tap Mania” iOS app to the App Store
- Developed and deployed “Swervy Car” iOS app to the App Store
- Developed and deployed “Cool Tweets” iPhone app to the App Store
- Developed with iPhone SDK using XCode, Interface Builder and Objective-C
- Developed and deployed “Pennies from Heaven” iPhone / iPad game to the App Store: (<http://itunes.apple.com/us/app/pennies-from-heaven/id385245356?mt=8>)
- Licensed and registered iPhone Developer in the Apple iPhone Developer Program
- Experience with the entire iPhone App submission process from concept to App Store
- Developed iPhone and iPad apps with iPhone SDK using XCode/Cocoa, Interface Builder and Objective-C
- Developed custom Siri API for 3<sup>rd</sup> party apps
- Experience with Voice recognition and text-to-speech synthesis APIs
- Experience with VGA and AV out from iPhone to external touchscreens and monitors
- Experience in the creation of advanced iPhone music applications for automobile integration

**Game and ActionScript development experience:**

- Developed and released “Pennies from Heaven” Flash/Action Script 3.0 game on Kongregate.com with score APIs. Game Link: <http://www.kongregate.com/games/dcash10181/pennies-from-heaven-by-duane-cash>
- Developed and released “Burger Buster” CS4 Flash game in ActionScript 3 for Kongregate.com and the Facebook social networking site
- Developed and released “JUNODI Soccer” Flash/ActionScript game at junodi.com
- Developed and released “Tic-Tac-Toe” Flash/ActionScript game for papertoys.com
- Developed and released “SuDoku Champ” game in C# for Windows Mobile devices through Handango.com
- Developed and released “Briefcase Deal” game in C# for Windows Mobile devices through Handango.com
- Developed R2-D2 Voice Interactive speech recognition program in C#/Visual Studio and XNA Game Studio
- Modeled spaceships, vehicles, static meshes and characters in Maya, 3DS Max, and Mudbox
- Created Unreal Tournament levels and maps under Unreal Editor 1.0, Unreal Editor 3.0, and UDK
- QA tested Crime Patrol 2, Battles in Time, Orbatok, and Mad Dog McCree for American Laser Games
- Developed Wobbly World game (shareware) in C++ for Mac using CodeWarrior

## **Professional Experiences:**

**AT&T via Insight Global contract, Richardson, Texas**  
**January 2017 to July 2017**  
**iOS, VR and AR Multimedia Developer**

### **Responsibilities:**

- Worked on Unity 3D in C# for virtual reality and augmented reality projects
- Worked on 3D/2D Multimedia experiences
- Worked with Maya and 3D modeling tools for assets
- Worked on projection mapping and mixed reality experiences
- Worked on development on 3d environments with Hololens
- Worked on native iOS/Swift applications for emotion sensing projects
- Worked with Code Cloud and SourceTree
- Worked with JavaScript applications, web technologies and RESTful apis
- Worked with Adobe Photoshop, Illustrator, After Effects and Affinity Designer for graphics
- Worked with augmented reality, virtual reality and other emerging technologies
- Worked with computer vision technology for face feature detection
- Worked in an Agile/Scrum methodologies
- Participated in ATO conference presentations
- Proof-of-Concept creation for R&D labs
- Worked with Internet of Things Platforms
- Exposed to Google Home and Alexa virtual assistant technologies

**American Airlines via Swift Pace Solutions contract, Fort Worth, Texas**  
**August 2016 to November 2016**  
**iOS Engineer in Innovation Group**

### **Responsibilities:**

- Worked on native iOS/Swift applications for next-gen airline software
- Worked with JavaScript applications and web technologies
- Worked with RESTful apis
- Worked with bluetooth technology for scanner connectivity
- Worked with computer vision libraries for passport and barcode scanning capabilities

**ThynkWare Innovation, Inc., McKinney, Texas (www.thynkware.com)**  
**April 2016 to Present**  
**Founder/CEO – Multimedia Developer / Innovator**

### **Responsibilities:**

- Working on a mind-controlled interface to control any device with the mind
- Created Unity 3D prototypes in C# for 2D/3D brainwaves computer interfaces
- Created iOS prototypes that control the iPhone and various functions using brainwave recognition
- Developing ThynkWare Speech to help those with ALS and locked-in syndrome to speak using thoughts

- Developing ThynkBot to control robots through brainwave patterns
- Created thynkware.com with HTML5/CSS3/JavaScript/JQuery as a media and business outlet
- Worked with Maya 3D and Blender for 3D modeling
- Created multimedia graphical assets in Adobe Photoshop and Affinity Designer
- Created demo videos using After Effects and iMovie
- Worked with Objective-C and Xcode and other APIs for developing applications
- Worked with QT/QML from QNX for IoT interfaces
- Worked with Node.js, Python, MongoDB, AngularJS, and Express for applications.
- Individual inventor for Patent Pending on a Mind-Controlled Virtual Assistant on a Smartphone Device
- Experienced in writing term sheets and preparing executive summaries / business plans for investors
- Experienced with incorporating and running a C-Corp from the ground up
- Comfortable speaking with legal attorneys, investors, business bankers and external hardware manufacturers
- Demonstrates initiative by affecting change through strategic planning and careful decision-making
- Earned an MBA, Management and an MBA, Business Strategy from International MBA Institute

**USAA via Millenium Group consultant contract, Plano, Texas  
November 2015 to March 2016  
Software Developer and Integrator**

**Responsibilities:**

- Working on native mobile applications with the Mobile Infrastructure Team
- Developing in Objective-C, Swift, and other technologies
- Working on new capabilities with emerging technologies
- Collaborating with multiple groups in an agile environment
- Worked with REACT.js, Webpack server for new web projects
- Worked with JAVA on software capabilities and packages
- Worked with Adobe Photoshop, Illustrator and Affinity Designer for graphic assets
- Worked with MongoDB, Express, AngularJS, and Node.js for MEAN stack solutions

**ThynkWare Innovation, Inc., Mountain View, California ([www.thynkware.com](http://www.thynkware.com))  
January 2013 to December 2015  
Founder/CEO – Multimedia Developer / Innovator**

**Responsibilities:**

- Working on a mind-controlled interface to control any device with the mind
- Created iOS prototypes that control the iPhone and various functions using brainwave recognition
- Developing ThynkWare Speech to help those with ALS and locked-in syndrome to speak using thoughts
- Developing ThynkBot to control robots through brainwave patterns
- Worked with Maya 3D and Blender for 3D modeling
- Created thynkware.com with HTML5/CSS3/JavaScript/JQuery as a media and business outlet
- Worked with Objective-C and Xcode and other APIs for developing applications
- Worked with QT/QML from QNX for IoT interfaces
- Worked with Node.js, python, MongoDB, AngularJS, and Express for applications.
- Individual inventor for Patent Pending on a Mind-Controlled Virtual Assistant on a Smartphone Device
- Experienced in writing term sheets and preparing executive summaries / business plans for investors
- Experienced with incorporating and running a C-Corp from the ground up
- Comfortable speaking with legal attorneys, investors, business bankers and external hardware manufacturers
- Demonstrates initiative by affecting change through strategic planning and careful decision-making

**Visa, San Francisco, California  
(Intelliswift August 2013 to February 2014), then Visa FTE February 2014 to May 2015  
Multimedia Developer/Researcher/Innovator - Sr. Software Engineer**

**Responsibilities:**

- Contributed to company Intellectual Property with 19+ patents filing
- Working on iOS and mobile projects using Xcode for innovative experiences
- Working with metaio SDK on augmented reality projects
- Working with Maya 2015, creating 3D model assets for Unity and Metaio UX

- Working with Unity3D (C# and UnityScript) for immersive experiences
- Working on projection mapping projects using Resolume Arena mapping software
- Developing personal area networks using iBeacon and Bluetooth Low Energy networks
- Worked with WebSockets, Socket IO, Client/Server APIs, and Open Sound Control for integration
- Developing visuals and visual programming language for new technology tools
- Working with HTML5/CSS3/Javascript/jQuery and Node.js for rapid prototyping projects
- Gaining experience in Vagrant virtual machines with Laravel LAMP stacks and HADOOP
- Worked with LAMP full stack development using Apache, MySQL, Python, Flask and Bottle frameworks
- Participated in scrum meetings in an iterative agile development environment
- Worked in energetic rapid prototyping environment with evolving requirements
- Worked with Adobe Photoshop, Illustrator to create visual design elements for web software and website projects
- Collaborated with top engineers to deliver innovative solutions for products

**Honda R&D Americas (Information Technology Research) contract via Aerotek, Mountain View, California**

**June 2011 to July 2013**

**Tech Specialist, iOS**

**Responsibilities:**

- Developing iPhone/iPad apps and HTML5 web apps for integration with future automobile platforms
- Created the first prototype leading to Siri Eyes Free, iOS in the Car that later became Apple CarPlay
- Developed applications for turn-by-turn and pedestrian navigation with voice guidance for iOS6
- Created custom APIs to find POI anywhere for mapping applications for use in iPhone apps
- Worked with WebSockets, TCP Socket Tunnels and Client/Server API for in-vehicle solutions
- Working with Objective-C and Xcode for iOS to develop applications for in-vehicle infotainment and telematics
- Designed architecture of apps that utilize cloud-based voice recognition and text-to-speech
- Architected mobile prototypes/apps that output to and receive touch events from in-vehicle touchscreens
- Development of mobile prototypes that create innovative in-vehicle social networking experiences
- Development with HTML5/CSS3/Javascript, and jQuery mobile to deploy on multiple platforms
- Worked with GPS location, heading, accelerometer, Bluetooth, and iPod Out technologies on mobile devices
- Worked with Dreamweaver CS5.5, NodeJS, NimbleKit, PhoneGap and Apache services for HTML5 solutions
- Large Project Leader for iOS application in-vehicle projects from concept to transfer of projects to production
- 5 Patents Pending and 15+ others in various stages of filing/application process since Jan 2013

**Toyota (Intelligent Computing Group) contract via Artizen, Inc, Mountain View, California**

**November 2010 to June 2011**

**iPhone Architect**

**Responsibilities:**

- Developed innovative iPhone applications for integration with the automobile
- Working in a research group with some of the top engineers
- Working with Objective-C and Xcode for iOS, Qt/QML with C++, QNX and Ubuntu Linux platforms
- Integrated iPhone app with steering wheel controls and in-vehicle touchscreen
- Working on iPhone apps that use GPS location and heading, accelerometer, mail composer services, Bluetooth, and other tracking in background mode
- Worked with Android SDK in Eclipse on application for the vehicle

**Mitchell International, Inc, Albuquerque, New Mexico**

**July 2007 to Feb 2010**

**Software Engineer/iPhone Developer**

**Responsibilities:**

- Worked on enterprise software using Visual Studio in C#/NET, VB6, ASP.NET and SQL server
- Worked with an enterprise Client/Server architecture for application development
- Worked with Microsoft Project to track, analyze and communicate development schedules and milestones
- Experience with software development life cycle in an Agile development environment
- Experience with working on complex projects while leveraging challenges of resources, time, budget and scope
- Created custom QA Automation in Quick Test Pro using VBScript and logged with TeamTrack/Mashups
- Produced technical documentation, test cases, and test plans for QA, marketing and technical support
- Participated in black box, white box, alpha, regression and verification testing as a QA Engineer
- Trained by Microsoft Technical Partner in WPF, Expression Blend and Silverlight during 5-hour seminar
- Worked on some Expression Blend and Silverlight code binding for software prototypes

- Wrote a 362-page Report Pak technical manual for ABS Enterprise during two month period
- Worked on game development in Unreal Editor 3.0, Maya, Mudbox, 3DS Max, Actionscript 3.0, iPhone SDK, Objective-C, Xcode/Cocoa, Windows Mobile, C#.NET 3.5, C++ and XNA Game Studio during off hours

**Red Mountain Media, Albuquerque, New Mexico**  
**February 2006 to June 2007**  
**Web Architect / HTML Author**

**Responsibilities:**

- Worked with CVS, XML, HTML, Microsoft Office (Word and Excel), SQL server, and XMLSpy
- Created HTML and XML User Interface content for online course website and participated in QA verifications
- Worked on Windows Mobile and game development in C#, C++, Java and Actionscript during off hours

**Sunshine Communications, Albuquerque, New Mexico**  
**August 2005 to February 2006**  
**High-Speed Internet Installation Technician**

**Responsibilities:**

- Installed and high-speed Internet service using my experience in LAN configuration, Ethernet, TCP-IP Protocol
- Performed successful aerial and underground installation, post-wiring, and network configurations resulting in excellent customer satisfaction for the custom cable installations
- Worked on game development in Flash/Actionscript and Visual C#/Visual Basic during off hours

**Cash Art Studio, Albuquerque, New Mexico**  
**January 2003 to August 2005**  
**Web Developer / 2D Artist**

**Responsibilities:**

- Worked with Dreamweaver, HTML, XML, Flash/Actionscript, All-In-One Submission for SEO and marketing, MS Word, MS Excel, Real-Draw, Photoshop, Illustrator, and MS FrontPage
- Developed web ads, websites, and press release for products
- Drove the Internet marketing of original acrylic and oil paintings, resulting in over 2000 sales over 3 years
- Designed User Interface for business website in Dreamweaver and HTML

**Di Lai Graphics, Irving, Texas**  
**January 2001 to June 2002**  
**Web, Logo, Flash Actionscript Developer / Web Architect**

**Responsibilities:**

- Worked with Flash/Actionscript, HTML, XML, Director, Photoshop/Illustrator, Java, JavaScript, C/C++, and Real-Draw
- Designed and implemented websites, User Interfaces, multimedia Flash video, graphics and logos for clients including the Beck Group, Bryte Software, JUNODI LLC, Three Dog Bakery, and Green Phoenix Productions

**Education:**

- Ph.D., Computer Science, University of Southampton UK -Online 2016
- M.B.A., Business Strategy, International MBA Institute Zurich, Switzerland 2016
- M.B.A., Management, International MBA Institute Zurich, Switzerland 2016
- M.A., Interactive Design/Game Development, SCAD Savannah, Georgia 2014
- B.S., Information Technology (MIS), National American University Albuquerque, New Mexico 2008
- B.A., English – Creative Writing, University of New Mexico Albuquerque, New Mexico 1994
- Graphic Design coursework, Westwood Institute of Technology Euless, Texas