

Andrew Cook

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Skills

Mastery of: C# in ASP.NET Razor, ASP.NET MVC, ASP.NET Web Forms, Umbraco, WPF, Harmony; Python; Java (pre-8); VB.NET; HTML, CSS, LESS, JavaScript, Bootstrap; PHP; SQL; PCI compliance, ADA compliance; OpenID Connect, Entra

Familiar with: C# in Xamarin, Store Apps, Unity; Java (8+); Lua; C++; ActionScript; PowerShell; WordPress; SCORM

Professional Experience

WillowTree, Inc

Platform Software Engineer

November 2021 – May 2023

Client names are omitted per NDA.

- Development and PCI compliance of online payments for an ASP.NET-backed mobile app ("Bobcat").
- Refactoring and hardening of a cloud spend analytics platform in Snowflake ("Slingshot").
- Development, security, and PCI compliance for online payments at bank-branded booking sites ("Doubloon").

Interface Media Group

Digital Media Software Developer

February 2014 – June 2019

- Development, maintenance, and support for 25 online account management websites for parking companies with secure online payment, including analysis and upgrades for redesigns, PCI compliance, accessibility, responsiveness, and analytics.
- Development, maintenance, and support for several museum interactive displays:
 - National Museum of American History: *Creating Icons* (interactive video wall with two kiosks)
 - Defense Intelligence Agency: *Heritage Theatre*, *Secret Victories*, *NCMI: Measuring Disaster*, *Operation Urgent Rescue*, *Hiding in Plain Sight*, an interactive selector, and content update and chain-of-custody utilities for the entire 12-interactive exhibit (5 kiosks)
 - Newseum: *The Berlin Wall Experience* (VR experience; assistance, tooling, and support only)
 - Comcast Local Media Development: *His Dreams*, *Our Stories: Voices of the Civil Rights Movement* (traveling video kiosks; also including ADA compliance)
 - National Museum of the American Indian: [Many Languages](#), [Protocol Matters](#), [What Would You Do?](#) (and a [Web version](#)), and production support for all 5 interactives in the [Nation to Nation](#) exhibit (4 kiosks)
 - National Museum of the United States Army: *Army 101*, *Army Interactive Timeline*, and *Army Touch Table*
 - National Museum of Natural History: [Dig It: The Secrets of Soil](#) (HTML5 prototype), untitled crop rotation game (prototype)
- Marketing, monetization, and brand development of *Challenge of the Athlonauts*, a gamified medical analysis tool for Children's National Medical Center.
- Development, maintenance, and support for an online and on-DVD learning management system for the Global Alcohol Producers Group.
- Development of a remote control system for a video wall for Intelsat.
- Development of paid streaming video websites for National Council of University Research Administrators, International City/County Management Association, and International Launch Services.
- Maintenance of online streaming video websites for International Launch Services and Tax Talk Today.
- Support for development of IAB-compliant banner and pre-roll advertisements and landing pages for NewDay USA.
- Development and maintenance of bespoke brochure sites:
 - Airfare America
 - Interface Media Group (three versions of main site)
 - International Launch Services (lobbying microsite)
 - Honold Communications (two campaign sites, portfolio)
 - McCarthy Hennings Whalen
 - Global Alcohol Producers Group (four sites)
 - NewDay USA (four sites)

mindSHIFT Technologies Internal Systems Engineer / Network Operations Specialist June 2007 – October 2011

- Advised customers of outages, disk failures, disk space usage issues, network incursions, and other issues.
- Removed virus and malware infestations and other inappropriate material from customers' servers.
- Removed damaged Systems Management Services installations that generated over 24 million files each.
- Recovered an enterprise CRM database, fixed corruption, and wired it into their new CRM infrastructure.
- Designed, implemented, and deployed a ten-foot-experience front end to the SolarWinds Orion, MonitorIT, and What's Up Gold network information systems, using WPF and MS SQL.
- Provisioned accounts in Active Directory, Exchange, Apropos, Microsoft Dynamics CRM, and the security system.
- Imaged and serviced workstations using Symantec Altiris and Dameware.
- Managed a 10,000-number Cisco IP Telephony infrastructure.
- Customized Cisco IP Phone interfaces to interact with customer relations management software.
- Designed, implemented, and rolled out a billing system using call records from IP telephony provider BroadSoft.
- Redesigned the existing Microsoft Dynamics CRM 3.0 workflow infrastructure to utilize resources more efficiently using new and expanded features in Microsoft Dynamics CRM 4.0.

Freelance Experience

- **Virginia Institute of Autism – Flashcards:** Android tablet app for assessing patient comprehension, specifically designed for patients with difficulty communicating. Uses Python and Kivy.
- **reddit.com/r/diabetes – Diabot:** Chatbot for storing blood glucose readings, estimating patient outcomes, and performing unit conversions for blood glucose between US and metric. Uses Python and Supybot.
- **Hydraulic Games – Charred Dirt:** *Scorched Earth*-inspired turn-based action game. Wrote map editor, tools, and content depot in VB.NET. Later acted as community manager and did C++/Allegro maintenance work.
- **Kwivira:** Loan management system written in Java EE, unique for automated workflows and transparency.
- **MCI – Material Broker:** Spare parts tracking system written in Java EE.

Hobby Experience

- **Unseen Adventures:** A mobile game about exploration, with content generated by large language models.
- **Battle Hunter A.R. 0062:** A PC port of a PlayStation classic (Unity / Pixi.js), adding online multiplayer.
- **Phantasy Star Online:** Private MMO server (C# / VB.NET / C++) with crossplay support.
- **Stream Tracker:** Marshals notifications from Twitch to streamers' communities on Discord, Facebook, and IRC.
- Mods for Puzzle Quest 2 (Lua), Factorio (Lua), Kerbal Space Program (Unity), BattleTech (Unity), Project 5 Sightseer (Unity), Rimworld (Unity), Mouse Hunt (Browser), Minecraft (Java), Minecraft Overviewer (Python).

Education

University of Virginia Wise, VA August 2009 – May 2012

Double-major in Computer Science and Software Engineering (incomplete)

Northern Virginia Community College Arlington, VA August 2006 – August 2009

Double-major in Computer Science and Information Systems (incomplete)

Certifications and Awards

Microsoft Certified Desktop Service Technician: Windows XP

Microsoft Certified System Administrator: Windows Server 2003

Microsoft Certified Technology Specialist: SQL Server 2005

Unity Awards 2017 (Finalist): The Berlin Wall Experience

TIVA DC Peer Awards 2017 (Gold): The Berlin Wall Experience

Am. Ass'n of Museums Excellence in Exhibition 2016: Nation to Nation

References

Troy Dubenezic	DevOps Engineer, Interface Media Group	(202) 861-0500 x774
Jordana Well	Experience and Strategy Executive, Well Done Media	(202) 454-4297
Alex Seidel	Web Developer, CAI Resources	(434) 987-6608
Roy Higashi	Audio Engineer, Hydraulic Games	(240) 426-9929