**Charlie Hayes**

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## Technical Summary

- Java, C#, T-SQL, PL/SQL, VB/VBScript/VB.NET, PHP
- XML, XHTML, CSS, JavaScript, ASP.NET
- Apache, IIS, SQL Server, MySQL, Subversion, Microsoft TFS
- Microsoft Visual Studio, JetBrains IntelliJ IDEA, Microsoft Office, Apple iWork, Adobe and Corel graphics Suits
- Critical thinking, problem solving, attention to detail, logic, organization, communication
- Graphic design ranging from print design, website graphics, application graphics and icons
- Usability including GUI design and refinement, user testing, website design, and analysis

## Professional Experience

**Senior Analyst,** Avanade                                                                           **2010 - Current**
Microsoft-centric consultant in application development working at clients' site

Client: <u>Aon Corporation</u>; CSS Specialist                                          Dec 2011 - Current
- Microsoft SharePoint based Web application stylesheet design, cleanup, and re-architecture
- User experience analysis and improvement
- Wrote tools in C# WinForms to help find orphaned CSS styles and usages

Client: <u>Firemans Fund</u>; Member of Policy Technology team                        Aug 2011-Nov 2011
- Validation of functional specs, technical specs, technical design, and implementation
- Implementation and testing of rating algorithms
- Designer and developer of tool to facilitate functional spec validation; Intelligently compares Excel workbooks, highlighting the differences written in C# WinForms using MS Excel .NET interop

Client: <u>Allstate</u>; Member of Client's Claims Technology Services team            Sep 2010 - June 2011
- Responsible for design, implementation, testing, and debugging of features that are part of a large enterprise application. Written in VB.NET against proprietary framework backed by .NET, ASP.NET, IIS, PL/SQL, Oracle
- Led design discussions while working with vendors to implement complex integration via web services around electronic subrogation
- Work with the business to establish technical implementation details ensuring all business needs are met by technology solutions around their existing business processes
- Track and resolve defects, working with multiple teams to identify root cause and develop solutions
- Work in small to medium sized teams on multiple concurrent release phases
- Led creation and maintenance of team Wiki to document internal development processes

**Senior Counselor,** Camp Fitch Computer Camp (two to three weeks every summer)     **2000 - Current**
- Taught Java, VB, Flash, C++, JavaScript, and Applications to campers between the age of 9 and 17
- Worked with other counselors on web design, networking, and camper instruction/projects
- Planning, curriculum, and organization

**Software Developer,** NuGrowth Technologies                                          **2007 - 2009**
Worked as consultant at consulting company, generally working at consulting company's location

Client: <u>RivetDigital</u>; Responsible for architecture, design, implementation, testing, debugging, and documentation
- Led digital sign software management system including disk image diffing, software versioning, asset tracking, and direct and update provisioning; Written in C# using WinForms and SQL against MS SQLServer
- Led disk partitioning and provisioning project; Written in C# using WinForms, interfacing with ASP.NET
- Led content creation wizard project to produce content to be deployed on digital signs and kiosks; Written in C# using WinForms.
- Worked in a group on tech demo for barcode scanning and printing on digital signs and kiosks; Written in C# and integrated with Adobe Flash content written in ActionScript
- Worked in a group on presentation software running on digital signs including networking, concurrency, media playback, logging, interfacing with Adobe Flash content, and software, content, and re-provisioning update mechanisms; Written in C# for Windows XP Embedded
- Worked in a group on digital sign management and reporting systems including pluggable log import service; Written in ASP.NET, C#; deployed on IIS and MS SQLServer
- Worked directly with client and client's clients on integrating content for use on digital signs and kiosks; Content written in Adobe Flash and ActionScript; Represented our client on conference calls
- Worked directly with client to debug hardware and software issues including memory leak, touch screen calibration persistence across re-provisioning, and remote administration over cell data connection

**Software Developer,** NuGrowth Technologies (continued)

Client: <u>TransChart</u>; Responsible for design, implementation, testing, and debugging
- Worked in group on Transplant Electronic Medical Record software (TransChart); Written in ASP Classic (VBScript), XHTML, CSS, JavaScript, and SQL against IIS and MS SQLServer
- Integrated dynamic charting using ChartFX
- Designed, built, and tested complex reports and customized features for client's customers
- Led WYSIWYG data-driven hierarchal template editor for patient communications including C# WinForms application to upload templates to database
- Led customization of dotProject Ticket system customization to integrate with our workflow; Written in PHP
- Worked in a group and with client's customers on data analysis using SQL and MS SQLServer Management Studio
- Worked in a group on HL7 adaptor service for Windows; Written in C#
- Worked directly with client and represented client in conference calls with client's customers

Client: <u>AirChef</u>; Responsible for implementation, testing, and debugging
- Worked in group on private jet catering system; Written in ASP.NET, C#, and SQL against MS SQLServer; Integrated with MS Dynamics GP

Client: <u>Roof Management</u>; Responsible for implementation, testing, and debugging
- Worked in group on facility management application; Written in ASP.NET, C#, and SQL against MS SQLServer
- Led developer on in-field photo upload tool; Written in C# using WinForms against MS SQLServer

Client: <u>Emergitech</u>; Responsible for design, implementation, testing, and debugging
- Led UI design and prototyping of 911 call center software; Written in C# using WPF

Internal: <u>NuGrowth Technologies</u>; Responsible for design, implementation, testing, debugging, and documentation
- Led sophisticated custom installation application project for NuGrowth Technologies' own application; Written in C# using WinForms
  - Deployment of SQLServer Express
  - Integrated key validation and key-based component enablement
- Led creation and maintenance of internal Wiki for internal communication and documentation

**Freelance Developer,** University of Dayton                                                              **2003 - 2004**
- Created data-driven, web-based, flexible, easy to use, and aesthetically pleasing survey system
- Was sole system and graphic designer and implementer and Led testing group
- Written in PHP and SQL against MySQL

<u>**Personal Projects**</u>
   **LanCaster** Java SE 1.6                                                           **Current**
- Peer-to-Peer package (file/files) distribution application for local networks designed to easily find and obtain packages hosted on the local network while streamlining simultaneous transmission to multiple clients
- Concentration on usability
  - Extremely responsive
  - Minimalist, easy to use UI that presents only relevant information required to use the application's core functionality
  - Designed to look like and feel like a native application on Windows or MacOS X based on the host OS
  - Unattended 'push' distribution using a subscription based model
  - Dual-level permission system minimizing password reentry while maximizing flexibility
- Concentration on computational efficiency
  - Pervasive use of multithreading and listener pattern instead of polling or manual refreshes
  - Minimally serialized network messages such as package information containing directory structures and hash trees
  - Package data is sent as it is simultaneously hashed, potentially halving the time-to-completion of the first transmission
  - When multiple clients desire the same package, intermediate clients will simultaneously receive, hash, and retransmit incoming package data leading to a best-case transmission time where n peers receive the package in the same time it would take one peer to receive it
  - Planned support for automatic reorganization of the package retransmission chain to minimize average time-to-completion by identifying and routing around bottlenecks such as slow disk access, slow network connectivity, network topology bottlenecks, etc
- Reusable class library
  - Implementation of List and Queue supporting notification of changes (similar to Glazed Lists) and accompanying Swing list box that mirrors changes in said lists.
  - Flexible background task handler allowing tasks to be paused, queried for completion, automatically scheduled based on priority, listened on for changes, and grouped to provide composite tasks. Two implementations: one where tasks are threads allowing for more complicated computations, and another where tasks can be worked on iteratively
  - Mapper which provides automatic n-way key/value pairs.
  - CondensedBitArray which stores numeric ranges resulting in much lower memory usage over traditional, relatively sparse, bit arrays with a negligible hit in lookup times.
  - Service and Peer framework allowing for easy implementation of P2P applications
  - Many reusable GUI elements including sophisticated list box, perpetual spinner and pie progress combo indicator, automatically and dynamically positioned callout bubble pointing in an arbitrary direction

   **GoogleAdwordsBadger** Java SE 1.5, XUL, JavaScript                               **2006**
- Firefox plugin that places a badge on search results indicating the likely cost-per-click for sponsored links
- Uses Google AdWords API; Abandoned due to new policy of charging for API access

   **iTunes Librarian** VB.NET WinForms                                        **2006**
- Interfaces with Amazon web services to load album art
- Locates tracks with missing files

   **PList Editor** VB.NET WinForms                                            **2006**
- Apple PList XML file editor
- Mirrors look and feel of Windows Registry editor