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SUMMARY  
Seeking employment with company who can utilize a creative, motivated individual to help develop innovative quality software products. I have experience building scalable, testable modern web UI, and web services. I enjoy cutting edge technology and modernizing older architectures to solve real world problems.

WORK HISTORY   
  
(2004-Present) STAFF SOFTWARE ENGINEER (MicroFocus, previously HPE, HP, Autonomy, IronMountain)

### Accomplishments:

* Worked to streamline our Security Auditing process by automating entering JIRA tickets for the continuous Fortify security scans of our source code.
* Won the 2019 Microfocus Hackfest award for most marketable new product idea: [GDPR Compliant Retrieve](https://hackfest.microfocus.net/16/projects/2748)
* Modernized 80’s XSL [Connected Backup](https://software.microfocus.com/en-us/products/computer-pc-backup/overview) Support Center Web UI to remove Java.
  + Leveraged Angular 5 web components to replace Java Applets in legacy XSL application without a complete rewrite.
  + Used Docker to allow unit tests to run as part of our continuous builds in Jenkins in Chrome.
* Deployed Connected MX to AWS
  + Wrote Jenkins build jobs to deploy our source code to AWS buckets.
  + Wrote a AWS Lambda function in NodeJS to create new buckets.
* As Technical Lead, enhanced [Connected MX](https://saas.hpe.com/en-us/software/connected-mx) Web UI.
  + Added document viewing capabilities for over 50 different file formats including Video, PDF, images, and text.
  + Updated reporting to deliver real time scaling and data update capabilities.
  + Updated JS frameworks to enable animation and transitions.
  + Developed an instantaneous file preview caching mechanism.
* First in HPE to build an [Electron](http://electron.atom.io/) application, allowing our company to reuse our current Web UI code in formerly command line only tools on Windows, Linux and OSX.
* Modernized our web build infrastructure from Maven, and Ant to use a more modern NodeJS, Bower, and Grunt based build system which added enhanced reporting, static analysis, minification, and code coverage. This build system is currently used by several web applications within HPE.
* Wrote [WPF](https://msdn.microsoft.com/en-us/library/aa970268(v=vs.100).aspx) prototype for CEO of Autonomy to present to the head of the HP Hardware. This resulted in having our software ([Connected Backup](http://protect.autonomy.com/products/data-protection/connected-backup/index.htm)) pre-installed on 500,000 laptops HP ships in North America. Additionally the legacy UI was updated to use this and now is the default Windows UI for the enterprise edition.
* Participated in the HP Innostream process. Delivered a live presentation to all 50,000+ HP employees worldwide.
* Developed a working prototype for a web based video search service. This search which could search text within a video as well as OCR image content within a video.
* Contributed to the world’s leading JavaScript PDF viewer: [PDF.js](https://github.com/mozilla/pdf.js/). Fixed bug allowing PDFs to be viewed on Microsoft IE 10+ browsers.
* Survived over 8 layoffs with some hair still intact.

### Patents:

* [US 20110016093 A1](https://www.google.com/patents/US20110016093?dq=william+r+clark+operating+system+restore) - Operating system restoration using remote backup system and local system restore function – Bare metal software restore from backup.
* [WO 2015016914 A1](https://www.google.com/patents/WO2015016914A1) - Storing difference information in a backup system - Software backup optimization to handle version controlled files effectively.
* [WO 2014051603 A1](https://www.google.com/patents/WO2014051603A1?cl=en) – Predicting failure of a storage device – Using backup software in conjunction with OS hardware statistics to more effectively predict when hard drives will fail.

### Publications:

* Fast HTML Document Sanitization – RD6170466.pdf <https://rd.orbit.com/rd/search/RD617046.pdf> (Accessible through ResearchDisclosures.com)

### Responsibilities:

* Trained junior engineers. Taught training classes on NodeJS, Git, Electron, and NSIS installers.
* Proposed, Prototyped, and helped implement porting Connected Java UI to C# using WPF.
* Set up build process for several projects.
* Designed, helped implement and maintain the Account Management Website.  
  (<https://myaccount-ab.connected.com/ssws/faces/login.jsp>). This is  
  multi-tier web application used to allow customers to manage their  
  backup data, and accounts. It is a multi-tier web application. It uses  
  the JSF web application framework for the GUI layer to facilitate  
  internationalization, and multiple browser platforms. On the back end,  
  it uses a C++ ATL SOAP server to interface to a network of SQL  
  databases.
* Developed a Selenium unit test framework to allow testing of every  
  page of the site in every language that we support on every browser.  
  (Works on Safari, Internet Explorer, Mozilla, and Firefox).
* Used JUnit, and CPPUnit to test the Java and C++ code  
  respectively.
* Extensive use of Log4cxx and Log4j logging facilities for  
  supportability.
* Adapted the SOAP exception framework that was developed to our  
  Agent software to aid in supportability.

(2003-2004) Staff Software Engineer, IBM - Rational Software Division   
CLEARCASE WEB TECHNICAL LEAD

### Responsibilities:

* Training of new project members, and technical support staff.
* Writing project schedules, estimates and requirements for new  
  feature development.
* Analyzing incoming defects from customers with help from technical  
  support and customer support, and delegating work to the other project  
  members when appropriate.
* Writing requirements and coding new feature development.
* Maintaining our internal web site to communicate status to other  
  product groups.

### Accomplishments:

* Responded to customer complaints by improving product performance  
  for our product over a LAN and WAN resulting in a 4x - 10x performance  
  improvement for the entire application.
* Utilized latest Apache compression (mod\_deflate) and caching  
  (mod\_expires) technologies.
* Worked with performance test team to set up scalability /  
  multi-user testing in response to customer complaints.
* Developed the new UX look and feel for the next release.
* While in charge of the product, the overall incoming defect rate  
  dropped by over a factor of 10.

(2000-2003) Software Engineer, IBM - Rational Software Division  
CLEARCASE WEB INDIVIDUAL CONTRIBUTOR

Responsibilities:

* Internationalization of ClearCase Web. This included  
  externalization of the project's C++, Java, and HTML, performing  
  character set conversions to pseudo-ASCII encodings for safe embedding  
  in URIs, and backconversion to the server's native character set.

Accomplishments:

* Wrote and implemented TestManager / XDE Tester integration software  
  requirements.

TEST MANAGER GUI DEVELOPER  
Responsibilities:  
\* Assisted with debugging of TestManager reporting and other  
critical defects for 2000 release. This involved both code inspection  
and the use of both Purify and Quantify to check for memory leaks and  
illegal memory accesses.  
\* Coding, and developing an internationalized automated regression  
test for ClearCase Web.  
\* Assumed ClearQuest - TestManager integration ownership including  
CQ package maintenance.  
\* Coding in C++ against a COM, and MFC and architecture.  
\* Leveraging the Stingray Objective Toolkit and Objective Grid third  
party libraries.  
Accomplishments:  
\* Wrote and implemented TestManager / XDE Tester integration  
software requirements.  
\* Implemented the TestManager log viewer.  
\* Ported TestManager / ClearQuest integration code base for  
2000-2002 release.  
\* Wrote functional requirements specification for query based view.

WEBSITES

<http://www.college-dirt.com> – Personal website developed for exploring crime statistics for US colleges and institutions. Developed using Typescript, MongoDB, ExpressJS and Angular deployed in AWS.

<https://www.instagram.com/cwilliamwork/> - Personal Instagram for Food

SKILLS  
Languages: TypeScript, JavaScript, Java, Assembly, C++, C#, SQL,

Frameworks: AngularJS, JQuery, Bootstrap, Express

Tools: Git, SVN, Clearcase, Grunt, Bower, NodeJs, Maven, Ant

REFERENCES  
Available upon request.