

# EDWARD AUSTIN CHENEY

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## PROFESSIONAL SUMMARY

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Senior Developer of JavaScript, TypeScript, Node.js, Client-Side Web, and Accessibility Compliance. I started writing code against various web technologies in early December 1997. I started writing JavaScript in early 2008 and have been writing JavaScript fulltime since. As a developer I enjoy writing and inventing programming solutions as open source software to common problems on my own time. Writing code purely of my own initiative has taught me many things that I would never have learned if my programming were limited to the direction, tools, and scope of a single employer's internal concerns.

I am a CW2 (Warrant Officer) in the US Army Reserves trained in information systems integration, MOS 255A, and formally a Sergeant First Class (SFC) with managerial experience. I hold a federal Top Secret security clearance (TS/SCI).

## TECHNICAL SKILLS

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- **A/B and Multivariate Testing** – I was the A/B test engineer for Travelocity allowing me to write a wide variety of experiments across all areas of the website. Some of these experiments required manipulations across multiple pages and had to maintain changes to data state in ways that did not interfere with the underlying functionality of the site. I was required to discover how to introduce dynamic changes, via code injection, that modified the site without creating multiple page paints (visual blink) even when the underlying content was itself dynamically loaded.
- **Accessibility** – Understanding accessibility requires a formal understanding of the WCAG 2.0 specification and ensuring those accessibility requirements become a fundamental consideration of product quality reflected in both the business requirements and final deliverables. I have written a couple accessibility tools to help speed solutions and increase awareness.
- **Application Architecture** – I have experience writing original large application from scratch. The goal of any application architecture is to ensure all business requirements are addressed in a way that funnels complexity into a refined solution that demonstrates simplicity that lowers operating expenses while allowing maximum potential for scaling and extension.
- **Data Structures and Algorithms** – A thorough understanding of data structures allows a developer to perform an amazing depth of original analysis without help from external tools and dramatically increase application performance. I created a language parser that supports multiple languages and outputs a single simplified data format regardless of supported language. This language parser is faster to read and access, due to its simplicity and predictable structure, than many other similar available language parsers.
- **Leadership** – Maximum **people managed is 29, including 4 subordinate leaders**, in 2015. At that time, I was the noncommissioned officer in charge of the 300<sup>th</sup> Sustainment Brigade S6 (communications) shop and acting S6 officer.
- **Performance** – In order to understand performance you have to understand what the code is really doing. A performance oriented application frees a developer from unnecessary abstractions and requires doing more from less.
- **Presentation** – In web technologies presentation is entirely expressed in CSS. With a little bit of practice a developer can really accomplish almost anything in modern CSS and gracefully degrade unsupported features to older applications.
- **Security** – I am a first time “GO” on the Security+, CASP, and CISSP exams.
- **Systems Development** – JavaScript can perform systems development using Node.js which executes incredibly fast. For my Pretty Diff application I wrote a file system traversal utility that can walk a file system segment of 4GB and tens of thousands of files in milliseconds. The convenient quality of developing a Node.js application is that it is OS agnostic.
- **Usability** – Usability is putting the user first and requires a solid understanding of behavior, performance, and user access.

## EDUCATION AND CERTIFICATIONS

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- Bachelors of Science in General Studies from Tarleton State University, Stephenville Texas, May 2006
- Security +, CASP, CISSP (expired)

## MAJOR PERSONAL PROJECTS

- **Pretty Diff** – My primary personal project started in early March 2009. The application is a language beautifier for various programming languages and a diff (comparison) tool. The application also contains various utilities when executed with Node.js. All of the Pretty Diff options are dynamically populated in both function and documentation to ensure their description is always current and available everywhere Pretty Diff can be executed and consumed. **Pretty Diff has been downloaded more than 5.9 million times from NPM (packages prettydiff and prettydiff2).**
  - <https://prettydiff.com/>
  - <https://github.com/prettydiff/prettydiff/>
- **Sparser** – About a year and a half ago I removed the original language parsers I wrote for Pretty Diff and moved them into a separate project for independent consumption. This project is innovative for creating a simple data format that potentially describes all languages, even documents comprising multiple languages, as the project claims to be a “*Universal Parser*”. Unlike many parsers that output a complex tree this tool outputs a uniform format resembling a database table that is always uniform and fast to read. Please try it out using the demo page on the tool’s website. All of the tool’s documentation is dynamically generated to ensure the documentation is always current and available in various formats.
  - <https://sparser.io/>
  - <https://github.com/unibeautify/sparser/>

## MINOR PERSONAL PROJECTS

- **Mail Markup Language** – My first really large project, circa 2007-2008. I created an original language in XML Schema to describe and structure email communications. The language contains several novelties including a structured solution to content description that solves a major portion of accessibility and artificial intelligence concerns. It never went anywhere because even though this was a personal project Sabre (Travelocity’s parent at the time) slapped a provisional patent on it.
  - <https://mailmarkup.org/>
- **Biddle** – This is a decentralized package distribution utility. The idea is that an application should be distributed as a single file inclusive of all dependencies, have a hash for integrity management, and not require any form of package repository or other centralized management. The health of a project should not be tied to the health of a central system.
  - <https://github.com/prettydiff/biddle/>
- **2048** – I modified the popular 2048 game so that it visually scales to fit the browser display port. I added an input field to the page that allows the user to change the game’s grid size. To execute the game simply download the game contents to your local computer and open the “index.html” file in your favorite modern web browser.
  - <https://github.com/prettydiff/2048>
- **colorContrast** – An accessibility tool that compares a list of colors to determine passing color contrast according to WCAG 2.0 AA and AAA luminosity definitions. There are many tools like this, but most tools compare only two colors at a time while this tool can compare a complete business color scheme in a single step.
  - <https://github.com/prettydiff/colorContrast>
- **getNodesByType** – A JavaScript function that traverses the DOM to capture all descendant nodes of a specified node type. The function may be executed by function name, as a property on the document object, or as a property of any element node in the page. For example executing `document.getElementsByTagName("div")[3].getNodesByType(8)` will return all HTML comments under the third div element in the page. The output is always an array of DOM nodes. To have this tool available in your page either copy and paste it into your browser console or formally include it in JavaScript application.
  - <https://github.com/prettydiff/getNodesByType>
- **semanticText** – A JavaScript function that gathers all text in an HTML page and determines if the text is semantically described by its parent element node and a few other things. The results display in a modal in the current page. Simply copy the code and paste into the browser console to execute.
  - <https://github.com/prettydiff/semanticText>

## EMPLOYMENT HISTORY

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### OVERSEAS MILITARY DEPLOYMENTS

- **300<sup>th</sup> Sustainment Brigade**, September 2018 – July 2019; Camp Arifjan, Kuwait  
As the brigade Network Operations Chief my primary responsibilities include administration of 6 SNAP satellite dishes across theater, network health at the brigade headquarters area, and management of network infrastructure.
- **311<sup>th</sup> Sustainment Command**, September 2012 – September 2013; Kandahar Air Field, Afghanistan  
As the Knowledge Management NCOIC it was my responsibility to coordinate with the 25 various shops and sections comprising the unit to extract high level information items in a way that could feed a common operating picture (COP) while also coaching and mentoring people about automation and efficiency.
- **RCERT-SWA**, July 2009 – July 2010; Afghanistan  
I travel Afghanistan as the junior member of RCERT's two-person CDAP (computer defense assistance program) team. We visited major US Army installations all over the country to run network scans, inspect information storage facilities, and coach site security managers to help improve their information security posture.
- **335<sup>th</sup> Theater Signal Command**, December 2003 – December 2004; Camp Doha, Kuwait  
As the senior NCO of the TNOSC (Theater Network Operations Security Center) it was my job to work the Army site of network maintenance across Kuwait, Iraq, and Afghanistan and report any major network outages. I also managed the process and provided the first step of compliance as the interface between CENTCOM and our two signal brigades.

### CIVILIAN EMPLOYMENT

- **Bank of America**, July 2017 – Present; Senior Developer  
Bank of America was in the process of consolidating their technology teams into a central campus in Plano, Texas. A big part of that effort was to build new teams.
- **Orbitz/Expedia**, April 2015 – June 2017; Senior Developer  
I was hired into Orbitz by former Travelocity colleagues to work as a senior developer, and about 8 months later Orbitz was acquired by Expedia. After the acquisition the primary task for my team, and neighboring teams, was to migrate the Orbitz brand onto the Expedia technology stack as rapidly as possible.
- **Razorfish**, July 2014 – April 2015; Senior Developer / Strategy Consultant  
Razorfish is a design and development agency. They hired me to be their first remote employee working onsite with their largest trouble client, Southwest Airlines. I provided expertise and technical guidance to the development team rebranding the commercial website on various implementation details and accessibility compliance. The goal was to achieve 100% WCAG AA compliance across all public facing areas of their digital products. I resigned my employment when my commitment with Southwest completed and I faced relocation to the Razorfish offices.
- **Intuit**, February 2014 – July 2014; Senior Developer (contractor)
- **Travelocity**, October 2007 – February 2014; Designer, Developer, Senior Developer, Customer Research Expert  
I was hired into Travelocity as a digital designer, but was involuntarily pushed into software development after only a few months. I learned early on that everything related to web technologies is defined as various standards. By learning to write code against the standards I was able to surpass my peers by delivering higher quality work in far shorter time that proved to be less fragile. I worked for various lines of business, but by far the most interesting was writing experimentation code against end users known as A/B and Multivariate tests. I left the company as it imploded from a 3500 person organization into eventually a 50 person organization over a year and half.
- **Digital Alchemy**, July 2006 – September 2007; Designer  
Digital Alchemy cornered the market on consumer resource marketing 4-start and 5-star hotels and resorts using hotel reservation data to create personalized digital products to the property guests. I was hired to be a designer to take hotel branding and apply that creative to the constraints of email messaging with minimal sacrifice to the creative vision of the respective properties brand vision.