Andrea Martinelli

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Languages: C♯, Java, TypeScript, Dart, JavaScript, HTML, C, SQL, PowerShell, some experience with F# and C++.
Frameworks/tools: .NET, WPF, Hg, Git, Angular, Node.js. Some experience with Win32, Android development.

Education

2013	Exchange student at Technical University of Denmark (1 semester)	DTU
2009-2012	Bachelor of Science degree in Computer Science (110/110 with honors)	University of Trento
	Thesis: Detection and extraction of articles from web pages and partial RSS feeds with full feed generation	
2004-2009	Diploma perito informatico (90/100)	"Marie Curie" High School – Pergine Valsugana

Past and current experience

2018-01 – now	SWE at Google (YouTube/Ads)
2016-10 – 2016-11	Legislative text annotator/hyperlinker
2015-03 – 2015-07	Software Engineer Internship at Google (Munich, Germany)
2010-01 – 2017-12	Shaman.IO (automatic web wrapper generator)
2009-02 – 2016-12	Songr (music player and aggregator)
2014-05 – 2014-08	Reviewed book "TypeScript Essentials" for Packt Publishing
2012-04	Hackathon participation at University of Trento
2011-08 – 2011-09	WinForms components development at Xenos Srl
2010-12 – 2012-02	Blogger at WindowsBlogItalia.com

Side projects

- Shaman.IO: provides both an infrastructure for writing and using strongly typed connectors to third party web sites using declarative annotations and CSS selectors, and a tool for automatically inferring the structure and the data model/schema of a website, which also generates the CSS selectors to extract the individual fields. A declarative C# class is generated for each entity type, which can be further fine-tuned. A data viewer can display data as tables, grids, lists or JSON, and custom queries can be written with an autocomplete menu, which are then converted to SQL and run against the database of dumped data.
- Shaman.RequestMaker: a command line version of Shaman which also learns to simplify a sample HTTP request by removing all unnecessary headers and POST/GET/json fields (so that it can be scripted).
- Shaman.Scraping: scrapes web sites, blogs, subreddits and facebook pages to WARC files.
- Shaman.DomEmulation: emulates a browser-like environment and allows execution of JavaScript through Chakra and Shaman.Dom (HtmlAgilityPack fork).
- RoslynLinqRewrite: modified C# compiler that rewrites LINQ expressions as fast, procedural code with minimal allocations.
- Songr: aggregates a dozen of music search engines, providing playback and download capabilities. It automatically picks the best results based on quality, speed and reliability of the server. Performs metadata cleanup and entity resolution, and also acts as a player for local files. It includes an opt-in system for submitting anonymous data and stats for improving the application.
- Shaman.Backup: stores encrypted and compressed blobs on Azure, keeping track of duplicates and previous file versions.
- Reddit Full Feeds: retrieves the pages of the most popular links on Reddit, detects the actual content (ignoring menus, navbars and ads), and builds a complete feed.
- JSON C♯ Class Generator: identifies patterns inside a JSON example file and generates the corresponding C♯ classes.
- Track Folder Changes: displays a tree of files on the disk in real time, restricted to the changes that occurred since the application started up, highlighting changes, deletions and creations.
- Windows Exports Comparer: lists the differences between two builds of Windows by comparing exported functions and localized strings in DLL files.
- Shaman.Dokan.Archive: Mounts a 7z/zip/rar/WARC archive as a file system.
- Shaman.BlobStore: provides System.IO-like APIs optimized for sequential reading and writing of large amounts of blobs, stored as batched packages.
- Notepad2-mod: forked to support autosave and autorecovery.
- Shaman.Cecil: tree-shaking and symbol renaming of .NET assemblies.