**Peter Ansel Carr**

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**Education**

05/10 University of Colorado - Boulder, Boulder, CO

Bachelor of Arts, Mathematics / Philosophy

Bachelor of Science, Computer Science, emphasis in Systems

**Work Experience**

12/16 – present Compose, an IBM Company/IBM, Boulder, CO/remote

Platform Engineer

Engineering a dynamically scalable public cloud database platform supporting a variety of open-source SQL and NoSQL databases. Working on both a legacy implementation (Compose) based upon Ruby, Docker, LXC, AWS, and Chef and a greenfield platform (ICD) based on Kubernetes, Go, Docker, Softlayer, and Terraform. Maintaining Compose and participating in on-call rotation in that platform to resolve SEV1 issues. Worked on Chef recipe enhancements for monitoring infrastructure provisioning in AWS. Engineered an Kubernetes ingress solution over TLS for various database deployments. Enhanced a reverse proxy for Compose to distribute front-end system monitoring requests and smooth out response data points to improve data visualization customer experience. Collaborated on design and implementation of DNS and TLS certificate management system for Compose and ICD. Enhanced CI/CD pipeline for automated testing and cluster provisioning and platform deployment. Developing monitoring platform for ICD utilizing service mesh and Prometheus pull based monitoring.

5/13 – 11/16 Cloud Elements LLC., Denver, CO

Software Engineer

Built multi-tier framework for VM cloud management utilizing VMWare vCloud Director backend, Java 8/Spring MVC asynchronous API middle-layer, and Websockets/RabbitMQ messaging system for real-time updates. Project included test-driven API development, Websockets asynchronous communication, and caching layer implementation for authentication/session token management. Implemented API integrations for 3rd party document management and CRM cloud systems. Enhanced automated unit and integration level testing platform using Python Robot Framework and Selenium. Developed [ASP.NET](http://asp.net) MVC web application and JQuery UI/Javascript front-end for marketing rewards calculation.

10/12 – 4/13 Concord Energy Holdings, Littleton, CO

.NET Software Developer

Lead development for ASP.NET MVC 4 invoicing system web application. Project incorporated domain model design and ORM implementation using Entity Framework LINQ to Entities, and test-driven development supported by dependency injection and mocking. Built front-end UI using Razor engine, HTML, CSS, and JavaScript/JQuery. Implemented an open-source CMS system (Orchard) module extension for an HR document management system.

6/12 – 9/12 Blue Dot Solutions, Denver, CO

.NET/C# Consultant with Robert Half Technologies, Inc.

Built functionality for a Windows Mobile workforce management application. Project included integration with ERP backend, ORM implementation between storage and object-model tiers with Entity Framework, development of sync framework for mobile devices via WCF web services, and device UI implementation using MVC pattern.

11/11- 6/12 Health Language Inc., Denver, CO

Software Engineer - Java

Developed and executed business facing end-to-end tests of desktop software for mapping medical code terminology sets. Fixed software defects in the Java Swing and ORM components. Extended unit test suites to improve code coverage and increase reliability.

6/10 – 9/11 Quark Software Inc., Denver, CO

Software Engineer - C#/.NET

Created a prototype web application for brand management with backend tier in WCF and [ASP.NET](http://ASP.NET) MVC front-end. Enhanced Quark XML Author XML publishing desktop software. Designed and implemented a Windows desktop installer for Quark XML Author.

5/09 – 5/10 National Renewable Energy Laboratory, Golden, CO

Research Program Participant, Solar Resource Assessment

Built a data visualization application for solar radiation data featuring time series plots and trend analysis with Python and matplotlib. Created a statistical analysis tool to compare ground solar data with mathematically modeled satellite solar data. Investigated automated data classification for filtering outlier data from solar collectors using cluster analysis.

**Programming Languages:** C#, Java, C, Python, Go (proficient); C++, JavaScript, Haskell, Clojure, Ocaml, Ruby, Groovy (familiar)