

# Michael J. Cox

Arvada, CO, United States  
303-562-5007  
[mike.jon.cox@gmail.com](mailto:mike.jon.cox@gmail.com)  
<http://eemyop.blogspot.com/>

*I'm a bass player. That pretty well defines who I am personally and professionally. I like to lay down a solid groove, keep us in the pocket, and take the occasional solo.*

*As an engineer, my philosophy and approach are the same. I enjoy developing back-end systems and APIs that keep data flowing smoothly in our applications.*

*On stage, or on the job, I have a track record of disciplined, consistent, and creative performance.*

---

## Technical Skills

**Likes:** python c# java apache-kafka  
**Dislikes:** vba coldfusion serena

---

## Experience

### Lead Developer – Charles Schwab

Apr 2019 → Current

mongodb, java, redis, spring, spring-boot, pcf, ibm-mq, rabbitmq, graphql, git, bamboo

- Developed a POC application to aggregate security descriptive data from multiple producers. Built the app for PCF using Spring Boot, Redis, and Mongo.
- Developed a GraphQL Spring Boot reference application, hosted in our internal shared code repo.
- Named as Security Champion, responsible for oversight of secure development practices.
- Responsible for setup of our development and build processes using Bitbucket, Bamboo, SonarQube, and Veracode.
- Work with our TD on architecture and design artifacts

---

### Senior Developer – Charles Schwab

Aug 2015 → Apr 2019

c#, java, asp.net-web-api, jax-rs, ibm-mq, rabbitmq, gigaspaces, redis, protocol-buffers, git

- Developed REST services (C# Web API, Java JAX-RS) and messaging (IBM MQ, RabbitMQ) solutions to distribute security descriptive data and end-of-day prices from our platform to 60+ downstream channels, including the firm's consumer-facing mobile and web applications.
- Migrated our web service caching layer from GigaSpaces to Redis. Re-designed our caching layer and reduced memory footprint by 25% and reduced average latency by 76%.
- Maintained custom workflows for our GoldenSource Security Master publishing application.
- Developed standardized cross-platform monitoring and metric solutions through application logging, Splunk, and AppDynamics.
- Received multiple Key Contributor awards

---

### Team Lead – Colorado, Office of Information Technology

Sep 2013 → Aug 2015

unix, linux, c#, javascript, oracle, asp.net-web-api, nhibernate, asp.net-mvc, jquery, twitter-bootstrap, knockout.js, logstash, kibana

- Built Safety Assessment application using ASP.NET MVC
- Designed and oversaw construction of web application for child abuse hotline.
- Coded domain layer and API for Hotline application using Web API 2 and NHibernate 3.3.
- Developed JWT-based authorization mechanism.
- Coded and directed development on front end using combination of MVC 5, jQuery, Knockout.js, and Bootstrap.
- Configured and administered Windows Server 2012 cluster
- Set up logstash and kibana for log aggregation and monitoring

---

### Software Developer – Colorado State University

Aug 2007 → Aug 2013

javascript, linq, sql-server-2008-r2, access-vba, coldfusion, visual-studio, git, python, c#, html, css, jquery, extjs, gis, handlebars.js, knockout.js

- Implemented a 3-tier SQL database application for the geologic mapping team in the Geologic Resources Division of the National Parks Service
- Designed the SQL database back end on SQL Server 2008 R2.
- Implemented a data layer using WCF data services and LINQ.
- Implemented a web interface based on ASP.Net, jQuery and ExtJS.
- Wrote Python to integrate our database with ArcGIS.
- Developed Access user interfaces to the SQL server database

---

**E-Learning Contractor** – University of Colorado, Denver  
java, spring, tomcat, ibatis

May 2006 → Dec 2007

---

**Computational Biologist** – University of Colorado, Health Sciences Center  
perl, opensuse, r, mysql, sas, c, unix

Sep 2005 → Aug 2007

- Developed data reduction techniques for comparative genomic hybridization data using Perl, MySQL, and R.
- Used phred, phrap, and consed to analyze genomic data.
- Created visualizations for genome-level data sets.
- Administered laboratory Linux server and MySQL database.
- Set up a local version of the UCSC Genome Browser for use in visualizing our alignments.
- Co-authored 2 papers, published in Science Magazine.
- Member of the Rhesus Macaque Genome Sequencing Consortium.

---

**Research Assistant** – INSTAAR  
pyp, mysql, sas, j

May 2004 → Aug 2005

- Helped design and code the Antarctic Freshwater Diatom Taxonomy website. (<http://huey.colorado.edu/diatoms>).
- Coded PHP/MySQL.
- Prepared diatoms catalogued on that site.
- Used SAS to do PCA, ANOVA, Shannon-Weiner diversity analysis of Antarctic freshwater diatoms.
- Co-authored 1 paper on Antarctic diatom analysis.
- Used the J programming language to model the effects of inter-population feedback on the evolutionary progress of alleles of varying relative strengths.

---

**IT Technician III** – University of Colorado  
windows, mac-os, dsl

Mar 2003 → May 2005

---

**Associate Software Engineer** – McDATA (currently Brocade)  
c, c++, html, javascript, embedded, design, visual-sourcesafe, command-line, integration-testing

Dec 2000 → Jun 2002

- Wrote C, C++, JavaScript, and HTML to design and maintain control software for data storage switches.

---

**Programmer/Analyst Intern** – Marshfield Clinic  
c++, visual-sourcesafe

May 1999 → Aug 1999

---

## Education

**MS Computer Science (Computational Biology)** – University of Colorado, Denver  
r, python, perl, c++

2005 → 2009

- Worked on ANOVA-based methods for determining relevant blocks of potential gene copy candidates.

---

**BS - Evolutionary, Population, and Organismic Biology** – University of Colorado  
s, r, php

2003 → 2005

- CU-LTER Bio-Math program participant, funded by the National Science Foundation.

---

**BS, Computer Science** – Alma College  
c, unix, data-structures

1996 → 2000

---

## Certifications

**Pivotal Certified Developer - Java** – <http://bcert.me/sriexgxz>  
pcf, spring-boot, gradle, java

Oct 2019 → Current

---

**IEEE CSDP**  
project-management

2010 → 2012

---

## Projects & Interests

**beercheer-ui** – <https://github.com/mctrusty/beercheer-ui>  
angular, bower, gruntjs

Aug 2014 → Aug 2016

---

**beercheer-api** – <https://github.com/mctrusty/beercheer-api>  
node, postgresql

Aug 2014 → Aug 2016