

Ken Courville

Introduction *Getting IT Done*™ since 1995. Motivated, creative, versatile technology enthusiast and solution builder. Industry experience includes military, government, healthcare, education, and technology.

Top Skills

languages javascript, typescript, c#, python, and more...

platforms web, mobile, aws, azure

data stores elasticsearch, sql, dynamodb, s3

systems design immutable deployments, serverless, load balancing, ci, cd, sharding, monitoring, event driven architecture

misc team player, lifelong learner, customer oriented

Experience

Principal Software Engineer - Yale University Library (Contractor) Oct 2021 → Current

c#, amazon web services, jenkins, .net framework, css, html, python, terraform, amazon ec2, continuous integration, sql server, federated identity

- Planned, coordinated, and performed migration of aging identity server from a single shared server to a dedicated, load-balanced deployment using Yale-hosted systems. The system was responsible for 70K+ identities and received 500-2K identity requests daily. Migration took 6 months and involved 14+ individuals.
- Began planning for replacement of deprecated identity server.
- Updated UX for customizations applied to COTS Yale Interlibrary Loan System (ILLiad) to follow accessibility guidelines, perform better on all device sizes, and match branding.
- Assisted team members and provided guidance for effective AWS usage.
Example: <https://github.com/krcourville/aws-batch-python-runner>

Staff Software Engineer - DHI Group, Inc May 2018 → Oct 2021

c#, angular, jenkins, typescript, .net core, css, sass, html, aws lambda, aws

cloudfront, aws s3, aws sqs, aws sns, python, aws cloudformation, elasticsearch, node.js, aws ec2, aws elb, aws auto scaling, aws codebuild, continuous integration, continuous delivery, automated tests, performance testing, aws dynamodb, elasticsearch 7, sql server, postgres

Cloud Platform Engineering Team

Promoted efficiency of 8+ dev teams by:

- Evaluating and recommending solutions new services and tech, AWS or otherwise
- Researching, documenting, and promoting best practices while considering maintainability, security, and costs
- Creating tools and documentation for bootstrapping new projects into AWS with a CI/CD pipeline pipelines
- Developing shared services for all dev teams
- Providing support for any other team on any aspect of software development across 20+ AWS Accounts.
- Resolving AWS issues and questions, often in collaboration with AWS account representative and technical support.

Notable Projects:

- Eliminated > \$10K in monthly costs for AWS Cloudwatch, Kinesis, Splunk, Lambda by analyzing logging outputs and working with dev teams to eliminate unnecessary logging.
- Bootstrapped effort to deprecate an unnecessary and buggy Bitbucket to CodeCommit sync solution. AWS costs for this service were minimal, but frustration factor was high.

Candidate Profile Team

Successfully assisted in the completion of version 2 of the dice.com candidate profile page. Worked with 2 other tech leads on a team of 10 total developers. Straddled learning and contributing to system design, infrastructure, backend, and frontend. Applied that knowledge to ensure any blockers were quickly resolved.

Job Search Team

- Led and contributed to new job search efforts for efinancialcareers.com and dice.com

- Developed ingestion pipeline for indexing of jobs data. A diagram that closely resembles the final solution can be found in the presentation here: <https://github.com/krcourville/aws-batch-python-runner/tree/main/presentation>
- Presented jobs via email alerts, searchable web apis, and Angular-based web client.
- Monitored cloud compute performance, identified and addressed bottlenecks.
- Identified and applied cloud compute upgrades with zero downtime.
- Applied Domain Driven Design by publishing and consuming microservices with the organization.
- Integrated with 3rd party services such as Google Maps and Salesforce.
- Data Volumes
 - Total jobs: > 100K
 - Consumed data processing events: > 400K/day
 - Job alerts: 2 million total, 1 million active on daily and weekly schedules
 - api requests: 3-7 million/day

Web Developer - ASF Payment Solutions

Dec 2017 → Apr 2018

javascript, angular, c#, mysql, db2, css, html5, sass, asp.net web api2, entity framework, identity server

- Maintained and added features for a new custom reporting system.
- Analyzed and migrated reports from legacy ASP application to new reporting system
- Bootstrapped a cross-platform interface, providing access to receipt printers and mag-stripe scanners for Angular-based web clients

Mobile Solutions Developer - Blue Dot Solutions

Apr 2016 → Dec 2017

javascript, typescript, angularjs, cordova, cordova plugins, esri, webpack, mongodb, couchbase lite, sql server, azure

Team lead, contributor, and architect involved in development of custom mobile clients and back end system integration development for hybrid (Cordova) mobile apps oriented for enterprise usage

- Railcar inspections for Bulkmatic Transport
- Work Management for Miami Dade County Water and Sewer Department, featuring ESRI maps integration. Video demo: <https://youtu.be/3GsKdNkl3Fg>

Web Software Engineer - Ria Digital

Nov 2015 → Mar 2016

asp.net web api, asp.net mvc 5, angularjs, azure, sql server

Contributed to dev effort for foreign exchange web applications with tasks consisting of:

- Integration of 3rd party services such as bank account verification
- Creating and updating Angular JS, ASP.NET MVC, and .NET Core UI views and server-side business logic and storage.

Senior Developer - AbsenceSoft

Sep 2015 → Nov 2015

asp.net-web-api, asp.net-mvc-5, angularjs, aws s3, aws sqs, aws ec2, mongodb

Contributed to foreign exchange web applications with tasks consisting of:

- Participated in development efforts for a SaaS leave management product.
- Extend, troubleshoot, and architect solutions, utilizing AWS products such as S3 and SQS

Full Stack Developer - Blue Dot Solutions

Sep 2014 → Sep 2015

asp.net mvc, asp.net web api, .net, c#, java, javascript, node.js, android, ios, sql server, mongodb, windows mobile, cordova

- Extended legacy asset management solutions. Stack: Windows Mobile, ASP.NET Web Forms, WCF SOAP services, SQL Server, SQL CE
- Extended Android-based service request management solutions. Stack: Android Native, iOS Native, ASP.NET MVC, SQL Server
- Architected and implemented major changes on the Cyan Mobile Platform to enhance performance and capabilities.
- Client stack: Single Page Application with Cordova, HTML, CSS, JavaScript. Angular, Backbone, Couchbase Mobile, and Node.js
- Server stack: ASP.NET MVC, ASP.NET WEB API, SQL Server, MongoDB, Azure Workers, Azure Service Bus- Platform consists of mobile clients, sync services, management portal, worker roles (custom and common message processing). API documentation: <https://api-dev.cyan.us.com/help/1>

Analyst, Applications Development IV -

Dec 2012 → Jun 2014

SourceGas

sharepoint 2010, webforms, asp.net mvc, asp.net web api, wcf, sql server 2008 r2, twitter bootstrap 3, jquery, javascript, java, html, durandal 2.0, knockout.js, signalr, tfs2010, entity framework

- Served as technical lead for custom systems design and implementation, bootstrapping projects, organizing development workflows, and providing mentoring for up to 5 other developers
- UI developer on <https://myaccount.sourcegas.com>.
- Updated internal ChoiceGas application to allow for efficient quoting and sign-up of 350K+ customers.
- Rewrote and modularized back-end payment reconciliation system that had fallen into disorder, reducing processing times from hours to minutes and saving the back office billing staff from manually accounting for all but \$70K of \$350M across 2.3M transactions.

Programmer - Machol & Johannes

Oct 2010 → Nov 2012

sharepoint 2010, asp.net mvc, wcf, sql server 2008 r2, twitter bootstrap, jquery, javascript, exchange server 2007, asp.net web api, reporting services, wpf

- Developed a multitude of internal and external applications, ranging in scope from hours to months, to assist with the extreme data flow and automated requirements for a rapidly growing company.
- Assisted with network support during outages or when dedicated support personnel were otherwise unavailable.
- Managed VMware hosted servers for SharePoint, TFS 2010, request management system, and a dedicated legacy ETL server.
- Replaced payment system with web interfaces for consumers and account representatives with an average monthly throughput of 4000+ transactions \$1M. Features included real-time accounting system logging and support for multiple payment processing vendors and trusts.
- In collaboration with Colorado Judicial Branch, developed a system to automate data extraction, validation, transmission, and tracking of new and subsequent court efilings (average output of 10K filings/mo).

IT Professional II - Colorado Department of Revenue

Sep 2008 → Oct 2010

webforms, asp.net mvc, nhibernate, sql server 2008 r2, reporting services, jquery, javascript, entity framework, crystal reports, tfs, informix

- Developed internal web and windows applications to increase DMV productivity and/or comply with legislature.
- Provided individual and group mentoring to peers regarding modern technologies and methodologies.
- Administrated and created SharePoint solutions.
- Administrated a VMware-hosted development network of approximately 30 virtual servers hosted.
- Optimized queries and reports against Linux-hosted Informix databases.
- Became a local expert for Microsoft networking, database administration, and development in the department.
- Developed a software replacement for bar code printer font modules, potentially saving the State of Colorado \$22K+ in hardware costs alone.
- Designed/developed systems to track motor vehicles investigations and proactively issue holds for invalid vehicle registrations.

IT Consultant (Independent Contractor) - Point B

Aug 2007 → Aug 2008

Technology

webforms, reporting services, ms access, sql server, windows server 2003, exchange server, iis, vb6, vba, winforms

- Provided consulting as database administrator, developer, and hardware/network administration for clients in the Denver metro as well as remote and out-of-state locations.
- Gained valuable insight and experience as a business owner managing accounts receivable, scheduling, and support contracts.
- Acquired 6 clients by word of mouth and reputation alone.

Systems Engineer - North Star Strategic IT

Dec 2005 → Aug 2007

vb6, vba, sql server, vlan, voip, cisco ios webforms, reporting services, ms access, sql server, windows server 2003, exchange server, iis, vb6, vba, winforms

- In addition to previous duties at North Star Business Systems, installed and administered VoIP phone system solutions based on Cisco equipment.
- Configured VLANs, access-lists, routing and routing protocols via Cisco and other networking equipment and supported WAN protocols such as HDLC, PPP, and Frame Relay.
- Developed procedures to cut installation time for VoIP solutions in half, eliminating the need for overtime, and providing quality insurance checks and problem resolution for equipment prior to installation.
- Maintained a billable percentage of over 90%.

Programmer/Analyst - Pragmatic Software Company

Jan 2005 → Nov 20

vb6, sql server, javascript, asp classic, crystal reports, saas

- Provided 24/7 support for a project management SAAS with an international user base ranging in thousands.
- Provided quotes
- Implemented enhancements and bug-fixes
- Scheduled and provided end user training.
- Managed databases, including data restore, performance tuning, stored procedures, triggers, UDF's, and reporting.
- Supported development network and hardware in a co-located production server farm.

Director of Information Systems - Flu-Central

Mar 2004 → Dec 2004

vb6, sql server, terminal services, winforms

- Managed all IT processes for local and remotely operating permanent staff and contractors.
- Provided reports to large scale clients including CVS and Home Depot.
- Coordinated with insurance companies such as Medicare and Cigna to expedite payment processing.
- Developed an ERP system, which was utilized for 3 years, to allow a staff ranging from 20 to 50 personnel to support 9000+ clinics nationwide. This system was used to manage scheduling, inventory, invoicing, customer relations, and estimating.

**Systems Engineer/IT Consultant - North Star
Business Systems**

Jun 2000 → Mar 2004

vb6, winforms, sql server, windows server 2003, iis

- Provided IT consulting for Denver Metro clients with some projects ranging into mountain resorts and Colorado Springs.
- Served as a liaison between vendor support and client for a variety of software for a 300+ active client base, including law firms, healthcare, marketing, real estate, mortgage/financial, home-builders, and construction/development.
- Services included modifying web sites, developing Windows applications, database administration, network and data migration, network upgrades, automated administration, network security analysis, remote access solutions, WAN and LAN cabling and routing.
- Maintained top or near top billable percentage with averages above 70%.
- Versatility, determination, and quick-learning abilities contributed to common utilization as a go-to technician for accomplishing objectives where others had failed or given up.

PC Technician - Midsouth Bank

1999

novell, tcpip, windows, dos, ibm midrange

Desktop and network support for 100's of employees across approximately 15 branch locations

**Information Systems Chief - 1st Battalion 8th
Marines, United State Marine Corps**

1995 → 1998

banyan vines, ethernet, dos, windows, unix, scripting, networking, hardware

- Supported and trained 100+ user base.
- Provided server and desktop support.
- Constructed computer networks in desert, mountain, and ship-based environments.
- Maintained Banyan and SMTP Email and distributed message system connectivity.
- Maintained hardware upgrades, inventory and accountability.
- Machine gun team lead, M240G.

Education

Bachelor of Science, Business Management

2005 → 2007

University of Phoenix, Denver, CO

Computer Science, some coursework

2003 → 2004

Metro State University, Denver, CO

data structures, binary logic

Associate of Arts, Computer Programming and Software Technology

2000 → 2002

Westwood College of Technology, Denver, CO

*vb6, sql, shell scripting, perl, javascript, database
design*