

Ben Anhalt

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SKILLS

- **Languages:** Python, Javascript, Go, Java, Elm, Haskell, SQL, HTML, XML
- **Libraries:** Django, SQLAlchemy, Celery, JQuery, Backbone.js
- **Databases:** Postgres, MySQL, Solr
- **Tools and Software:** Linux, Docker, Git, OpenAPI, Apache, Nginx
- **Services:** Github, Digital Ocean, LetsEncrypt, Teams, Slack, Zoom
- **Soft Skills:** Code Review, Agile, Mentoring, Hiring Committees, Customer Service

WORK EXPERIENCE

IT Specialist

Dec 2024 – Feb 2025

USDA – Farm Production and Conservation Business Center – Geospatial Services

- Member of Data Provisioning Team effecting migration of GIS service pipelines and data storage from on-prem to AWS cloud.
- Obtained Public Trust clearance.
- Successfully on-boarded into remote position with a federal agency.
- Received training in ArcGIS products.

Senior Cloud Backend Engineer

Nov 2022 – Aug 2023

Thread – SaaS provider for energy utilities

- Individual contributor within cloud team of about 10 engineers.
- Upgraded and enhanced existing web-based data management application according to user requirements.
- Designed and implemented REST APIs in Go to be deployed to the AWS cloud hosted microservices backend.
- Developed SQL queries and schema migrations for PostgreSQL databases.
- Analyzed and resolved performance issues in SQL queries.
- Developed unit and integration tests.
- Implemented relationship-based authorization system (ReBAC).
- Diagnosed and resolved user reported defects.
- Participated in code reviews and Agile development methodology.
- Communicated effectively within a remote, distributed team, utilizing Slack and Microsoft Teams.
- Documented work in Architecture Decision Records (ADR) and entries in company knowledge base using Notion.

Research Architect

Jan 2018 – Nov 2022

Specify Collections Consortium

- Lead developer for Specify, a not-for-profit, member supported software project within the Biodiversity Institute at the University of Kansas that provides open-source digital collection management software for biological research and natural history museum collections. Features include data ingestion, inventory, reporting, search, label creation, workflow processes, and on-prem and hosted cloud deployment options.
- Collaborated with subject matter experts to determine user requirements.
- Provided technical expertise regarding cloud services, software development best practices, including analysis and evaluation of open-source and COTS software libraries and tooling for use throughout the software development life cycle (SDLC).
- Analyzed customer requirements to develop recommendations and proposals for new features and enhancements to existing applications, taking into account alternatives and cost-effectiveness.
- Developed application and infrastructure architecture.
- Coordinated software releases with an emphasis on CI/CD and reproducible builds utilizing Docker.
- Participated in webinars to apprise stakeholders of project goals and gather feedback.
- Authored architectural, technical, and operational documentation in wikis and support pages.
- Served on hiring committees for developers which included formulating questions, participating in interviews, assessing code samples, and evaluating candidates.

Research Engineer

2014 – Jan 2018

University of Kansas Biodiversity Institute

- Individual contributor on the Specify and Lifemapper projects including feature enhancements and issue resolution as part of a 3-4 member engineering team.
- Led full-stack development of the Specify 7 web application, developing and maintaining Django based backend providing REST APIs and business logic, and JS single page application (SPA) frontend.
- Developed related cloud services for digital asset management and full-text search.
- Monitored cloud infrastructure for performance and stability.
- Supported end users via email and screen sharing.
- Worked independently to design, implement, test, and merge new components based on issue tracking in Github using Agile methodology.
- Performed data migrations between systems with different schemas, utilizing SQL and Python scripts.
- Managed operation infrastructure including MySQL, Apache Solr, Apache HTTP server, and Nginx services in on-site installations and cloud VMs at Digital Ocean.
- Represented the project in a technical capacity at international conferences.

Programmer I

2011 – 2014

University of Kansas Biodiversity Institute

- Individual contributor on the Specify project.
- Delivered new features and enhancements and resolved issues in existing Specify 6 Java desktop application.
- Took initiative in launching development of new Specify 7 web-based application, leveraging existing MySQL database schema to provide backward-compatible upgrade path for users.
- Migrated version control for large codebase from SVN to Git.
- Took part in subject matter conferences to demo new features and gather user requirements and feedback.

EDUCATION

Master of Science – Physics

University of Kansas

- Investigated optimization strategies for nonlinear beam-beam interactions in the Tevatron particle accelerator.
- Developed code in C++ and Fortran to model and simulate beam-beam interactions.

Bachelor of Science – Physics, Mathematics

Missouri State University

- Magna Cum Laude in the Honors College
- GPA: 3.8