

Andrew Hoetker

Education

- **Arizona State University** **Tempe, AZ**
Ira A. Fulton Schools of Engineering, BSE Chemical Engineering *August 2014 – May 2020*
 - Completed coursework includes Chemical Reactor Design, Modern Separations, Numerical Methods, Heat and Mass Transfer, Process Dynamics and Systems Control, Process Design, Six Sigma, and Capstone Design project.
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Experience

- **American Express** **Phoenix, AZ**
Engineer II *July 2020 - Present*
Engineer III *March 2020 - July 2020*
 - Developed Conversational AI applications using Python (Rasa).
 - Created backend services and Functions-as-a-Service using FastAPI and Couchbase.
 - Built custom CI/CD pipelines to publish Python package wheels with native extensions.
 - Implemented Cloud-Native development practices for new and existing microservices.
 - Co-founded the employee Rust Guild to promote the Rust programming language for new applications.
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Certifications

- **Certified Kubernetes Application Developer** **Linux Foundation**
Credential ID LF-hdrjh7vug9 *2021 – 2024*
 - The Certified Kubernetes Application Developer exam certifies that users can design, build, configure, and expose cloud native applications for Kubernetes.
 - **Machine Learning** **Coursera**
Credential ID MFFE4WN98VF8 *2021 – Present*
 - Completed 12-week Machine Learning course taught by Andrew Ng.
 - Supervised Learning projects including handwriting recognition and housing price prediction.
 - Unsupervised Learning projects including Principal Component Analysis.
 - **Rasa Developer Certification** **Rasa**
Credential ID 438VPGRL7 *2020 – Present*
 - Certified in creating conversational AI applications with Rasa.
 - Chatbot development using Rasa Python package and Action Server.
 - Natural Language Understanding model optimization with Rasa NLU, Tensorflow, and spaCy.
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Projects

- **Home Server** 2017 – Present
Proxmox Hypervisor and Kubernetes Cluster
 - Virtualization using KVM, LXC containers, and Kubernetes.
 - Self-hosted Git and Continuous Integration using GitLab.
 - Multi-node Kubernetes cluster using k3s on Virtual Machine nodes.
 - **Autoreport** **GitHub Repository**
Report generation using \LaTeX embedded in MATLAB source files. *2018 – Present*
 - Extends the built-in *publish* functionality in MATLAB.
 - Implements custom preamble for use of arbitrary packages and styles.
 - Distributed as an Add-On through MathWorks Community Apps.
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Technical Skills

Languages: Python, Rust, JavaScript, Java, C, C++, MATLAB, \LaTeX , Shell script

Tools: Git, Docker, Kubernetes, Helm, Argo CD, OpenShift, Couchbase, PostgresQL, SQLite, MongoDB, Linux, SSH, Ansible, QEMU/KVM, ChemCAD, Aspen