

Katrina Janeczko

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RESOURCES

LinkedIn: [linkedin.com/in/katrinajaneczko](https://www.linkedin.com/in/katrinajaneczko)

Blog: katrinajaneczko.net

GitHub: github.com/katrinajaneczko

SKILLS

Tools: Git, VSCode, Windsurf, Jira

Programming: Proficient in Python, Bash; Familiar with Go, Java, C, R, MATLAB, JavaScript, HTML/CSS

AI/LLM/Agent Systems: MCP (Model Context Protocol), A2A (Agent to Agent) protocol, LLM application development, prompt engineering, agent skills, RAG, TensorZero, LangChain, AI-native application design, GitHub Copilot, OpenCode, Microsoft Copilot agents, Google ADK, Windsurf, MCP Inspector

Security & Identity: OAuth 2.0, OpenID Connect (OIDC), enterprise SSO (Microsoft Azure Active Directory), dynamic client registration, external OAuth app and provider integrations (GitHub, Atlassian), RBAC

Frameworks & Libraries: FastAPI, MCP SDK, Flask, Svelte, Django, React, SQL, Axios, Requests, OpenCV, Pytest, MyPy, OneSignal, BeautifulSoup, NumPy, Amazon Comprehend

Cloud & Platform: Amazon Web Services (ECS Fargate, Lambda, S3, ECR, RDS, IAM, EFS, ACM, Route53, SNS, CloudWatch), Docker, Kubernetes, Helm

DevSecOps & Infrastructure Automation: GitHub Actions, Octopus Deploy, Concourse CI, Terraform/OpenTofu, Terragrunt, Terratest, Makefile, Snyk, Checkov

Processes & Practices: Agile (Scrum/Kanban), code reviews, automated testing, spec-driven development (OpenSpec), RESTful APIs, OpenAPI (Swagger), infrastructure as code, continuous integration, continuous delivery, containerization, platform governance

Languages: Fluent in English; Some Spanish and Russian

WORK EXPERIENCE

COMCAST

Fullstack AI Tooling Software Engineer

Philadelphia, PA

Jun 2025 – Present

- Build a centralized enterprise AI platform enabling secure adoption of LLMs, agents, and MCP-based systems for thousands of developers across a Fortune 50 company, providing governed access to models, tools, and internal data through a unified gateway and registry layer
- Design and implement authentication and authorization systems for AI platform access, including OAuth-based integrations, dynamic client registration, and secure service-to-service connectivity, enabling developers to connect to virtual MCP servers that act as secure gateways to tools such as GitHub, Jira, Confluence, Context7, and internal systems
- Develop MCP infrastructure in Python using the official MCP SDK, demonstrating expertise in MCP protocol design, server architecture, and advanced Python design patterns for scalable AI systems
- Build out-of-the-box MCP tools and prompts for common developer use cases (e.g., GitHub, Jira, Context7), enabling instant onboarding without custom configuration
- Enable AI agent interoperability across multiple frameworks and clients including OpenCode, LangChain, Google ADK, LibreChat, Microsoft Copilot, Windsurf, and GitHub Copilot in VS Code
- Build standardized onboarding, registration, and discovery pathways for MCP servers and agents, enabling scalable reuse of tools across engineering teams
- Operate and support the platform in production (using tools like kubectl and MCP Inspector), rapidly resolving issues and driving adoption through close collaboration across multiple engineering organizations, building strong cross-team relationships and driving adoption
- Author extensive documentation and video training materials for MCP servers, agent workflows, and platform capabilities, enabling self-service efficient adoption for both new contributors to the codebase and new users of the platform
- Deploy and operate platform services using Kubernetes and Helm for scalable, reliable infrastructure
- Contribute to a user-facing Svelte frontend, supporting UX improvements and developer experience design for creating and managing virtual MCP servers, permissions, integrations, OAuth connections, and resource discovery

- Work across LLM infrastructure and routing layers using TensorZero to unify access to multiple model providers behind a single governed endpoint
- Recognized as part of AI Excellence initiatives for defining AI platform architecture and governance standards; serve as a technical point of contact for AI enablement, guiding adoption of tools, frameworks, and best practices across engineering teams

COMCAST

DevOps/Cloud Engineer

Philadelphia, PA

Jul 2023 – Jun 2025

- Developed and maintained reusable, centralized InnerSource Terraform AWS modules with best practices, including a comprehensive full-stack module that integrates AWS ECS, ACM, load balancer, RDS, and secret management, streamlining infrastructure management, security, and reliability across Comcast
- Built a Terraform module for scalable, cost-effective ML model serving on AWS ECS, enabling seamless deployments in fewer than 10 lines of user code, reducing deployment complexity and operational overhead
- Developed and maintained an internal Terraform HTTP backend state management tool in Python, leveraging FastAPI for the backend API and PostgreSQL for data storage, and creating a Python CLI, in order to bring best practices in Terraform state management to every developer at Comcast
- Provided enterprise-scale white glove support for 60+ teams using Octopus Deploy, including debugging workflows, documenting processes and fixes, and teaching advanced delivery patterns
- Led the development and LLM integration of a Slackbot solution using Python, saving over 1000 developer hours per quarter through a RAG-style setup to automatically answer support questions for developer platforms
- Wrote a Go CLI for performing admin tasks in Octopus Deploy, enabling the team to build higher-level automations and reduce time spent on platform maintenance
- Engineered a modular, reusable Python client for an internal cost reporting API, with unit and integration tests using Pytest, type safety with MyPy, and well-structured documentation to support easy adoption and long-term maintainability
- Presented internally to 1000+ people on topics including DevOps/IaC, best practices, the developer experience, and project demos, enhancing organizational knowledge and establishing thought leadership

TEMPLE UNIVERSITY KORNBERG SCHOOL OF DENTISTRY

Software Engineer Intern

Philadelphia, PA

Jan 2023 – Jul 2023

- Wrote and updated automation software for admissions processes for 4000+ applicants using Java, Python, Postman, and WebAdmit API
- Led team of two student workers in designing system architecture and development plan for candidate selection software

TEMPLE UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

Teaching Assistant for Discrete Math

Philadelphia, PA

Jan 2022 – Jul 2023

- Held 4-6 office hours per week to answer questions and review class material for a class of 25+ students
- Created resources, notes, practice problems, and homework questions to assist students' understanding

EXTERNAL ENGAGEMENTS

- **Day Two DevOps Podcast** – Interviewed on the transition from college to industry and starting a career in DevOps
- **University of Pennsylvania Hackathon 2023** – Led an intro session on GitHub Actions for student developers
- **Temple University Data Science Club 2024 & 2025** – Gave 2 talks on early career growth and bridging the gap between education and real-world tech

EDUCATION

TEMPLE UNIVERSITY

Bachelor of Science in Computer Science & Mathematics; Minors in Spanish and Biology

Philadelphia, PA

Aug 2019 - May 2023

Honors: *magna cum laude*

Relevant Coursework: Java, Python, C, Object Oriented Programming, Data Structures & Algorithms, Systems Programming & Operating Systems, Software Design, Discrete Math, Calculus, Linear Algebra, Mathematical Modeling, Probability Theory, Real & Complex Analysis, Abstract Algebra

UNIVERSITY PROJECTS

STUDY BUDDY

2023

- Built a gamified progressive web app with web push notifications using React and Django that encourages academic success
- Integrated Canvas API to sync class assignments, implemented user authentication, and developed a point-based reward system with visual feedback to track user progress and boost motivation through personalized pet interactions
- Containerized with Docker, deployed via DigitalOcean, and automated CI/CD pipelines using GitHub Actions

SNAKE HUNT

2022

- Created a colorful 2D multiplayer game in Python using Pygame and Socket libraries, hosted locally
- Designed client-server network architecture with TCP protocol, used Pydoc to generate documentation, and wrote unit tests for game logic

SIMPLE SHELL PROJECT

2022

- Wrote from scratch a simple version of a Linux shell in C with both interactive and batch-file mode, I/O redirection capabilities, support of pipes, and support of background program execution
- Tested code on remote Linux server, used GDB to debug, created Makefile to compile, and wrote thorough documentation

IS IT VEGAN?

2020

- Independently researched OpenCV and web development to create a web app using Flask and Python, allowing users to determine a food product's vegan status