Zack O'Rourke

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EDUCATION

The College of New Jersey   Ewing, NJ
Bachelor of Science in Computer Science, Minor in Finance   *Aug. 2022 – May 2026*
— GPA: 3.7 — Dean's List (All Semesters)

EXPERIENCE

Tiffany&Co Cloud & Platform Engineering Intern   June 2025 – August 2025
Whippany, NJ
- Provisioned 10+ Azure managed instances and Kubernetes clusters using Terraform ensuring consistent infrastructure across dev/QA environments.
- Developed automated Azure VM inventory management system using Python and pandas to audit 200+ virtual machines, generating compliance reports that identified USD $1K in potential monthly cost savings.
- Presented cost optimization findings to engineering leadership, translating technical analysis into actionable recommendations and influencing cloud spend strategy.
- Collaborated with FinOps team to identify and remediate inefficient cloud resources, conducting analysis that uncovered 10+ underutilized servers and coordinated with 5 application teams to implement automated start/stop scheduling.
- Integrated Azure Cost Management APIs to build automated budget monitoring and alerting system, providing real-time spending notifications that prevented budget overruns across 5 business units.

PSEG Software Engineer Intern   June 2024 – August 2024
Edison, NJ
- Developed Python script using Selenium and PyQt5 to automate configuration comparison across production and test environments, improving debugging efficiency by 50%.
- Collaborated with other interns to create a comprehensive full-stack Intern Knowledge Base for future interns, utilizing HTML, CSS, React.js, and Git.
- Conducted data resets in testing environments using PuTTY and WinSCP, troubleshot incidents across interfaces like SAP, Mulesoft, Kubra, and EITK scripts, and implemented production changes through ServiceNow.

PROJECTS

DevOps Portfolio Website | *React, Three.js, Docker, Terraform, Jenkins, GitHub Actions, Nginx, Ansible, OCI*
- Architected and deployed a production-grade portfolio website using DevOps practices, featuring automated CI/CD pipelines with both Jenkins and GitHub Actions that build, test, and deploy to Oracle Cloud Infrastructure on every commit to main.
- Implemented Infrastructure as Code using Terraform for OCI provisioning, containerized the React application with Docker Compose, and configured Nginx reverse proxy with SSL termination using certificates for secure HTTPS deployment.

Leetcode AI Assistant | *React, OpenAI API, Node.js*
- Developed an interactive web application to enhance interview preparation by presenting users with interview questions and integrated AI-powered assistance for real-time guidance.
- Designed a dynamic post-question quiz feature to reinforce learning. Collaborated with team to refine user experience, achieving an intuitive, adaptive interface aimed at maximizing user engagement and skill improvement.

Full Stack Database Visualizer | *PostgreSQL, Express.js, Chart.js, HTML, CSS*
- Developed and implemented a full-stack database management system for a stakeholder in Oregon, supporting their goat ranch operations. Designed the database schema, imported data from CSV files, and developed a REST API for dynamic querying of the database. Enabled users to view and filter goats based on various criteria and access specific notes for each goat.

TECHNICAL SKILLS

Languages: Python, Java, HTML, CSS, JavaScript
Tools & Frameworks: Git, GitHub, VS Code, Flask, Django, BeautifulSoup, Node.js, Express.js, Chart.js, React.js, SQL, PostgreSQL, MongoDB, AWS DynamoDB, Cognito, Lambda, S3, API Gateway, CloudFront, Docker, Terraform, Nginx, GitHub Actions, Jenkins, Ansible

ACTIVITIES, AWARDS & CERTIFICATES

AWS Cloud Practitioner Certificate
Computer Science Sophomore of the Year Award
HackTCNJ - President
UPE CS Honors Society - Secretary
Digit.ALL - Media Manager