

JACOB PHILLIPS

Software Engineer

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Education

Oregon State University

Bachelor's of Science in Computer Science

- Major in Computer Science, Minor in Economics

Corvallis, OR

08/2014 - 12/2018

Professional Experience

TIDE Services

Software Engineer

Huntingdon, England, UK

10/2023 - 04/2024

- Developed and maintained .NET applications using **ASP.NET MVC** and **C#**, ensuring robust performance and scalability.
- Designed and implemented RESTful APIs using **ASP.NET Core**, facilitating seamless integration with front-end applications and third-party services.
- Migrated legacy email notification systems to **Twilio's SendGrid** for two major products, leveraging **.NET** libraries to enhance email delivery speed and reliability while reducing operational costs.
- Implemented deployment strategies using **AWS** services, including **EC2**, **S3**, and **RDS**, to ensure efficient and secure production release processes.
- Translated 3 AWS Lambda functions from **Python** to **C#/.NET 6**, deploying them through **Azure DevOps** pipelines, ensuring compliance with updated security standards and maintaining continuous integration and delivery (CI/CD) processes.
- Enhanced and maintained comprehensive code documentation using tools like **Swagger**, improving codebase clarity and facilitating knowledge transfer within the development team.

United States Air Force

Avionics Technician

RAF Mildenhall, England, UK

07/2019 - 07/2023

- Led a successful high-stakes hostage rescue mission in Africa, coordinating avionics for a team of four combat aircraft over 3,000 miles, resulting in the liberation of a US civilian and elimination of 6 enemy combatants.
- Resolved a critical gearbox malfunction in CV-22B Osprey aircraft, restoring full functionality by replacing a faulty sensor, averting \$2M in potential losses, and earning the '21 General Leo Marquez Award.
- Led a team to correct a critical software fault causing navigation system failures, achieving a 72% 12-hour repair rate, the highest in Air Force Special Operations Command.
- Managed all Aircraft Flight Data for a \$1.1B fleet of CV-22B Osprey Tilt-rotor Aircraft, ensuring accurate recording and input of mission data for 658 sorties and 2.3K flight hours.

Projects

Tech Blog - jacobrphillips.com

<https://www.jacobrphillips.com/>

- Developed a blog application using **ASP.NET Core MVC**, featuring a user-friendly navigation system enabled by ASP.NET Core routing capabilities.
- Implemented **ASP.NET Core Identity** for secure user authentication and authorization, allowing visitors to register, log in, and engage with the website by leaving comments.
- Utilized **Entity Framework Core** with **PostgreSQL** for database management, ensuring efficient data retrieval and storage.

Vulnerability Management Lab with Azure and Nessus Essentials

<https://github.com/jacobrphillips/Vulnerability-Management-Lab/blob/main/README.md>

- Conducted comprehensive vulnerability assessments using **Nessus Essentials**, identifying critical security vulnerabilities and prioritizing remediation efforts to enhance overall security posture.
- Developed and documented a Vulnerability Management Lab environment using **Azure VMs**, demonstrating practical applications of cybersecurity principles and techniques.

Instructor Hub

<https://github.com/gschool-blue-ocean/instructor-hub-20>

- Customer Relationship Manager built with **React**, **Node.js** with **Express**, and **PostgreSQL**.
- Designed and implemented a RESTful API using Express, enabling full CRUD functionality with PostgreSQL.
- Implemented unit tests using **Jest** for backend functionality, ensuring code quality and reliability.
- Conducted end-to-end tests using **Playwright**, validating the application's functionality and user experience.