
EMPLOYMENT EXPERIENCE

Software Engineer, TIDE Services, Huntingdon, England, United Kingdom

October 2023 – April 2024

- Collaborated with Senior Software Engineers to conduct root cause analysis on incorrect web page rendering. Identified faulty Redis cache execution through review of C# service and controller implementations, and research of official Redis, Amazon ElastiCache for Redis, and internal application documentation. The overall result was the correction of website rendering, a 30% increase in website performance recorded through Lighthouse, and a 21% decrease in CPU utilization for RDS database instances from December 2023 to February 2024.
- Wrote RESTful APIs in C# to interface with Twilio's SendGrid API, replacing the legacy Microsoft Exchange SMTP server. This resulted in accelerated email delivery for customers, elimination of extraneous application support email reporting processes, and cost savings for the organization.
- Rewrote Python AWS Lambda functions in C# due to deprecated security support for the implemented Python runtime, deployed to AWS from Azure DevOps utilising AWS Toolkit for Azure DevOps and Azure DevOps release pipelines. This resulted in continued functionality and improved security hardening of applications.
- Supported the Quality Assurance team by writing unit and integration tests with xUnit, conducting load testing with JMeter and Postman, and performing end-to-end testing with Selenium for 8 bespoke web applications. This resulted in improved application stability, higher test coverage, and enhanced overall software quality.

Aviation Electronics Technician, United States Air Force, RAF Mildenhall, United Kingdom. July 2019 – July 2023

- Resolved a critical gearbox malfunction by utilising multi-meter, electronic wiring diagrams, and system knowledge to verify damaged sensors, restoring full functionality by replacing damaged sensors, averting \$2 million dollars in potential losses. This resulted in earning the 2021 Lieutenant General Leo Marquez Award for the 352nd Special Operations Maintenance Wing, an award recognised for demonstrating superior service, performance, and job knowledge in communications-electronics maintenance.
- Managed and recorded all aircraft flight data and maintenance logs for a \$1.1 billion dollar CV-22B Osprey Tilt-rotor aircraft fleet, utilising proprietary government software to ensure accurate recording and input of mission data for over 658 sorties and over 2,300 flight hours.
- Led the remediation of a data-bus fault causing navigation system failures, achieving a 72% 12-hour repair rate, the highest repair rate in Air Force Special Operations Command.

PORTFOLIO (jacobrphillips.dev)

- **Technology Blog** (jacobrphillips.com)
 - Full-stack application built with ASP.NET Core MVC and Postgresql, serves as the official website for my Youtube channel dedicated to the exploration of programming and technology.
- **Instructor Hub** (Github: [Repo](#), Website: instructor-hub.com)
 - Customer Relationship Manager built with a team of developers utilising Github Actions, Kanban, and agile methodology.

ADDITIONAL INFORMATION

- **Skills:** C#/.NET, ASP.NET Core MVC, HTML/CSS, Git, Jira, JavaScript, TypeScript, React, Node.js, SQL
- **Interests:** Music production, content creation, public speaking, Austrian school economics

EDUCATION

Bachelor of Science in Computer Science, Oregon State University, Corvallis, OR

Class of 2018

- Cumulative GPA: 3.8/4.0
- Minor in Economics