

# CHRISTOPHER HAYES

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## PROFILE

*Software Architect* with extensive *engineering* and *leadership* experience. *Certified* in AWS technologies. Over 10 years of experience in building full-stack software with built expertise in system decomposition & integration, as well as software & cloud native architecture.

## SKILLS

### ARCHITECTURE

Cloud / Distributed systems design, Machine Learning, System Partitioning / Integration, Function / Component Mapping, Service design (Rest & Soap), Event / Message Design

### LEADERSHIP

Strategic technology transitions, Agile planning, Process standardization, Risk and Opportunity management, Team development, Goal setting

### LANGUAGES

JavaScript, Kotlin, Swift, Java, C, PHP, Python, Ruby, Perl, Objective C, Go, SQL

## EXPERIENCE

### PRINCIPLE SOFTWARE ENGINEER - SMART STORMWATER, CENTURY ENGINEERING

DECEMBER 2019 - PRESENT

Designed and Implemented a smart infrastructure product for stormwater management. It uses cloud services from AWS including IoT Core, Lambda, DynamoDB, ElasticSearch, Kinesis, and many more. Our firmware application uses docker containers, redis, and NodeJS deployed on a raspberry Pi with a custom hat connected to hardware sensors and actuators.

Lead an initiative to integrate multiple machine learning models & processes into our system.

Advised and mentored teams on the SDLC and AWS technologies including S3, CloudFront, ECS, RDS, Cognito, and more.

### INDEPENDENT SOFTWARE ENGINEER

Designed, built, and manage a multi-platform mobile application with a supporting cloud backend. It utilizes Kotlin Multiplatform to share business logic, while utilizing platform native declarative UI frameworks (SwiftUI and Jetpack Compose).

### TECHNICAL LEAD, GENERAL DYNAMICS INFORMATION TECHNOLOGY

SEPTEMBER 2018 - DECEMBER 2019

*Managed* infrastructure resources by utilizing AWS services such as EC2, IAM, S3, CloudWatch, CloudTrail, VPC, and Route 53 along with automation tools such as Ansible and Jenkins.

*Analyzed* an API with a multi-terabyte database for performance limitations and degradations. Implemented improvements and remediations with changes in the Java application and underlying Linux system.

SENIOR SOFTWARE ENGINEER, MARINER FINANCE

SEPTEMBER 2017 - SEPTEMBER 2018

*Architected* a customer communication system using *Cloud Native* technologies, including serverless functions, message queues, noSQL database, and REST API endpoints.

*Enhanced* an n-tier NodeJS platform based on business needs.

*Established* standards for code quality and workflow processes. *Created* scripts for code deployments, git branch management, and environment initialization.

*Mentored* an agile team in various aspects of the SDLC.

*Configured* AWS infrastructure resources and agile tools such as Jira and Confluence.

TECHNICAL ARCHITECT & MANAGER OF SOFTWARE DEVELOPMENT, AON HEWITT

APRIL 2014 - JUNE 2017

*Designed* solutions and produced *software architecture* documentation turning business requirements into the designs used by developers. Partitioned system enhancements into reusable components.

Presented designs to project stakeholders and reviewed project proposals.

*Managed and Mentored Application Developers* of an enterprise health and benefits platform built with Java, SQL and Web technologies. Set and reinforced standards for code, design, performance and processes. Encouraged team members to continuously improve their craft and provide innovative and modern solutions to our clients' needs.

*Lead* an effort to improve system quality by *decreasing technical debt* and *increasing code coverage* of automated testing.

*Directed a squad* of developers, testers and business analysts to meet project deadlines through project modeling, capacity planning, sprint planning, and technical leadership.

SENIOR DEVELOPER, AON HEWITT

MAY 2010 - APRIL 2014

*Designed* and implemented a multi-process architecture of a user web portal. *Architected* an upgrade process for the portal data model.

Integrated and produced REST and SOAP based APIs to consume and expose data.

## **EDUCATION & CERTIFICATION**

AMAZON WEB SERVICES - SOLUTIONS ARCHITECT ASSOCIATE - 2019

BACHELOR OF SCIENCE - COMPUTER SCIENCE - 2010

UNIVERSITY OF MARYLAND BALTIMORE COUNTY