

# Easy, fast and secure software development with **Azure DevOps, GitHub, and Visual Studio**



# Development with Azure and Visual Studio.

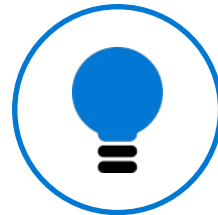
Explore cloud development with Azure, from customized education to developer tools, cloud services, and support. With your Visual Studio subscription, you'll have a wide range of benefits which will help you increase productivity and improve your skills.



**Increase**  
developer agility and productivity.



**Collaborate**  
anytime, anywhere.



**Innovate**  
on the platform of your choice.



# Massive disruption is happening in every industry

Software development teams must adapt to keep pace.

# Four powerful trends



99% of code bases include open source

Essential to secure your use of open-source end to end.



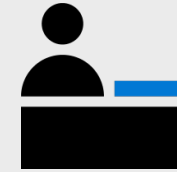
Companies are struggling to adopt DevOps

93% of implementations are not optimized.



Up to 85% improvement in code quality

Leveraging DevOps best practices and solutions



40% boost in developer onboarding

Using preferred tools is key to recruitment and retention.

Sources: BLS, NSF, NCES, IDC, Gartner, LinkedIn, C+AI Corp Strat

Source: OSSRA 2019, Synopsis

Source: DORA State of Devops Report 2018

# GitHub is a critical partner for your Digital Transformation (1 of 2)



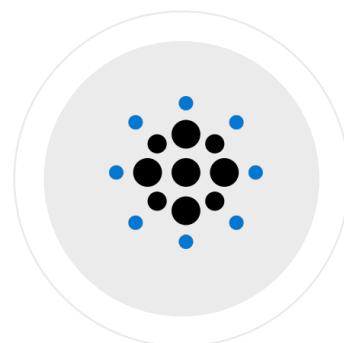
## Security & compliance

Securely integrate open-source code in your software.



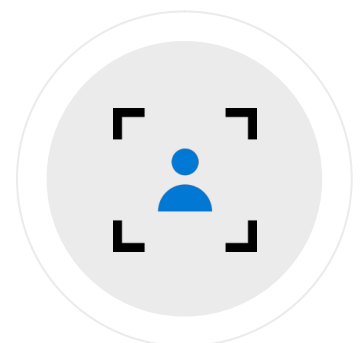
## Code-to-cloud DevOps

Automate workflows from code to any cloud.



## Team collaboration

Bring open-source code, culture, and best practices into your org.



## Developer talent

Attract and retain the best talent with tools developers know and love.

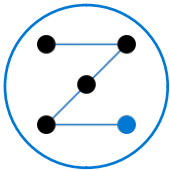
# Team Collaboration

Bring open-source culture and best practices into your organization.



## Increased collaboration

Empower teams to collaborate within your organization.



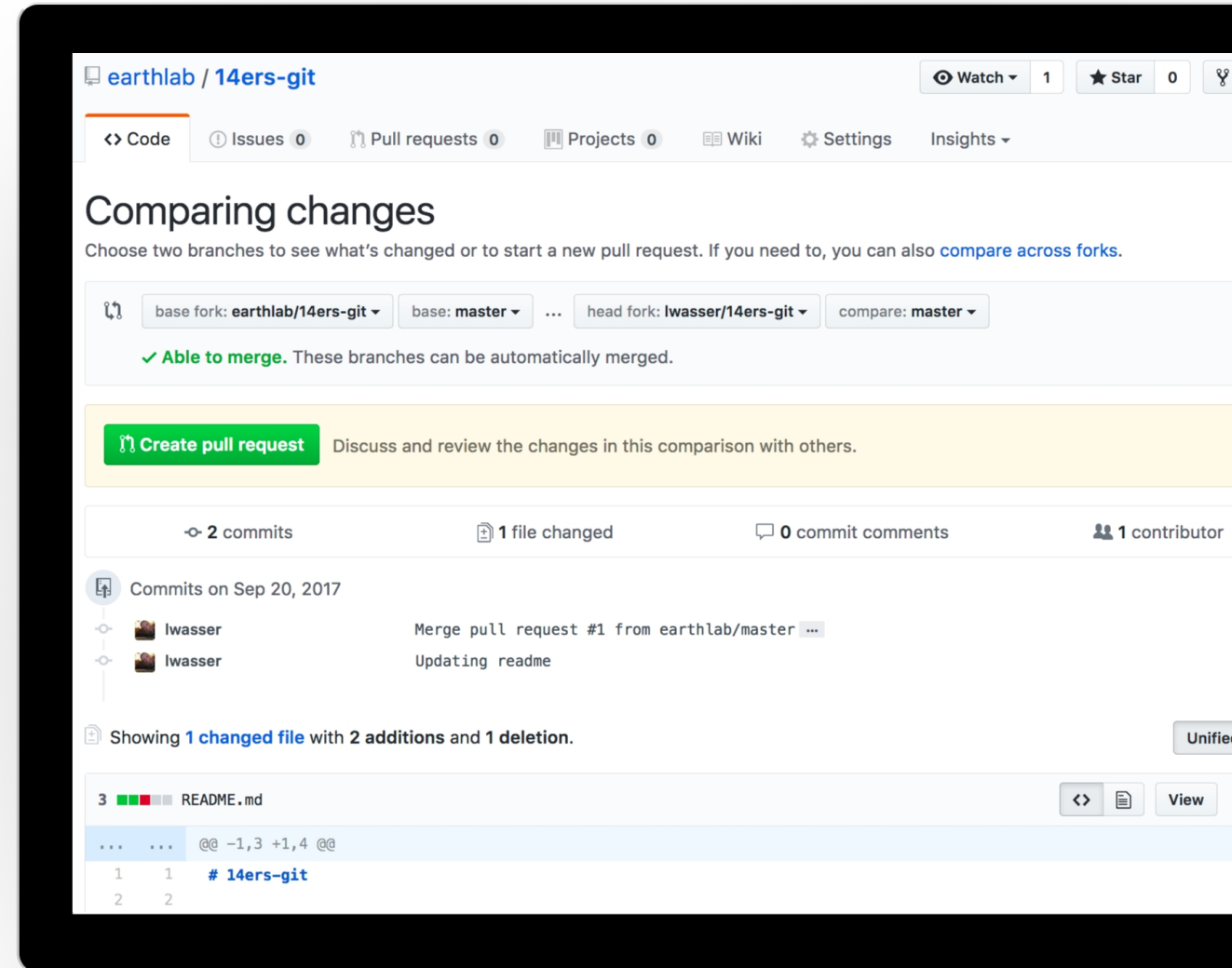
## Breaking silos

Simplified collaboration across teams, sharing of knowledge, improved code reuse, and secured workflows.



## Team Insights

Visibility into team metrics and actionable recommendations to improve team effectiveness and collaboration.





# Security & Compliance

Identify early, resolve rapidly



## Secure use of open source

Dependency Insights and automated security fixes help keep your dependencies secure and up-to-date.



## Pattern-based security analysis

Always-on security analysis with GitHub Advanced Security scanning both open-source repositories and enterprise code.



## Global community for security

Integrated into the National Vulnerability Database, MITRE, and WhiteSource for up-to-date security information.

The screenshot shows the GitHub Security Alerts page. At the top, there's a navigation bar with links for Code, Issues (2), Pull requests (7), Actions, Security (active), Insights, and Settings. On the left, a sidebar contains 'Alerts' (active), 'Advisories', and 'Policy'. Below this, a message states: 'You are in the **Beta** of automated security fixes. [Opt out](#) or [give us feedback](#). [Learn more about automated security fixes.](#)' The main content area is titled 'Security Alerts' and shows a summary: '7 Open' and '1 Closed'. Below this, a list of alerts is displayed, each with a green warning icon, the package name, the source (GitHub), the file (package-lock.json), and the number of instances (#):

- eslint-utils** by GitHub package-lock.json #13
- lodash** by GitHub package-lock.json #12
- lodash.template** by GitHub package-lock.json #11
- lodash.mergewith** by GitHub package-lock.json #10
- lodash.defaultsdeep** by GitHub package-lock.json #9
- js-yaml** by GitHub package-lock.json #8
- fstream** by GitHub package-lock.json #7

# Code-to-Cloud DevOps

Automating workflows from code to any cloud



**Home for all developers**  
**Home for the world's code**

- Elastic, to any scale
- Fully managed
- Always the latest packages
- Supports all OS for CI/CD
- Largest DevOps ecosystem
- Community-led automation



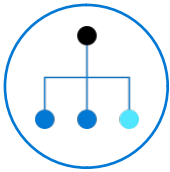
**Deploy anywhere, including  
your own data centers**

- On-prem
- Azure
- AWS
- Google Cloud Platform



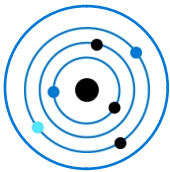
# Developer Talent

Attract and grow your teams



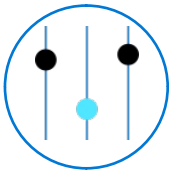
## Get connected

Recruit top developers to your team and make them feel at home with the platform and processes they already know and love.



## Stay connected

Make it easy for your team to work on the projects they care about—whether open source or internal code.



## Get started, faster

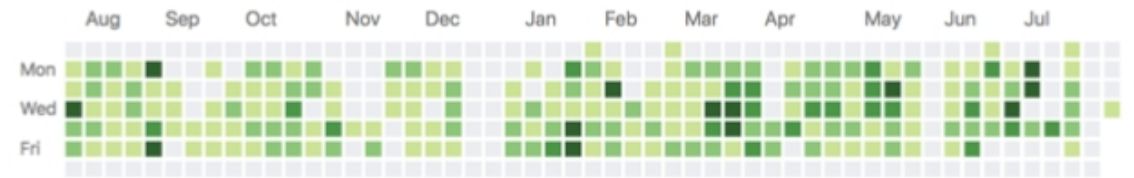
Provide developers with the platform they prefer and are familiar with can reduce on-boarding time by 40%.

Total Economic Impact of GitHub, Forrester Consulting 2020

©Microsoft Corporation

1,877 contributions in the last year

Contribution settings ▾



[Learn how we count contributions.](#)

Less More



@github



@octo-org

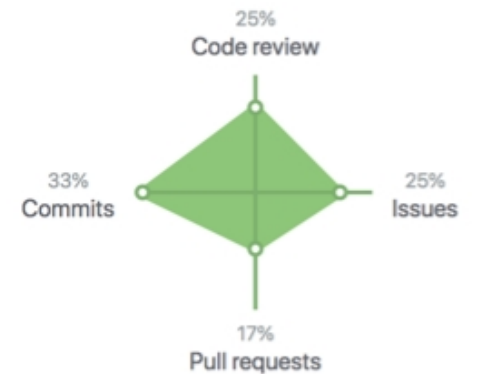


@octobox

More

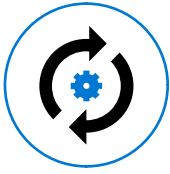
## Activity overview

Contributed to [github/help-docs](#),  
[github/product-documentation](#),  
[mclark/my-test](#)  
and 5 other repositories



# GitHub loves Azure

Provide a seamless cloud experience for GitHub



## Automated workflows with Azure

GitHub Actions for Azure has native support for deployments to Azure Kubernetes Service, Azure Web Apps, Azure Container Registry, and more is planned.



## End-to-end traceability and governance

Plan and track work in Azure Boards linked to GitHub, and monitor your code deployed to Azure from GitHub Actions.



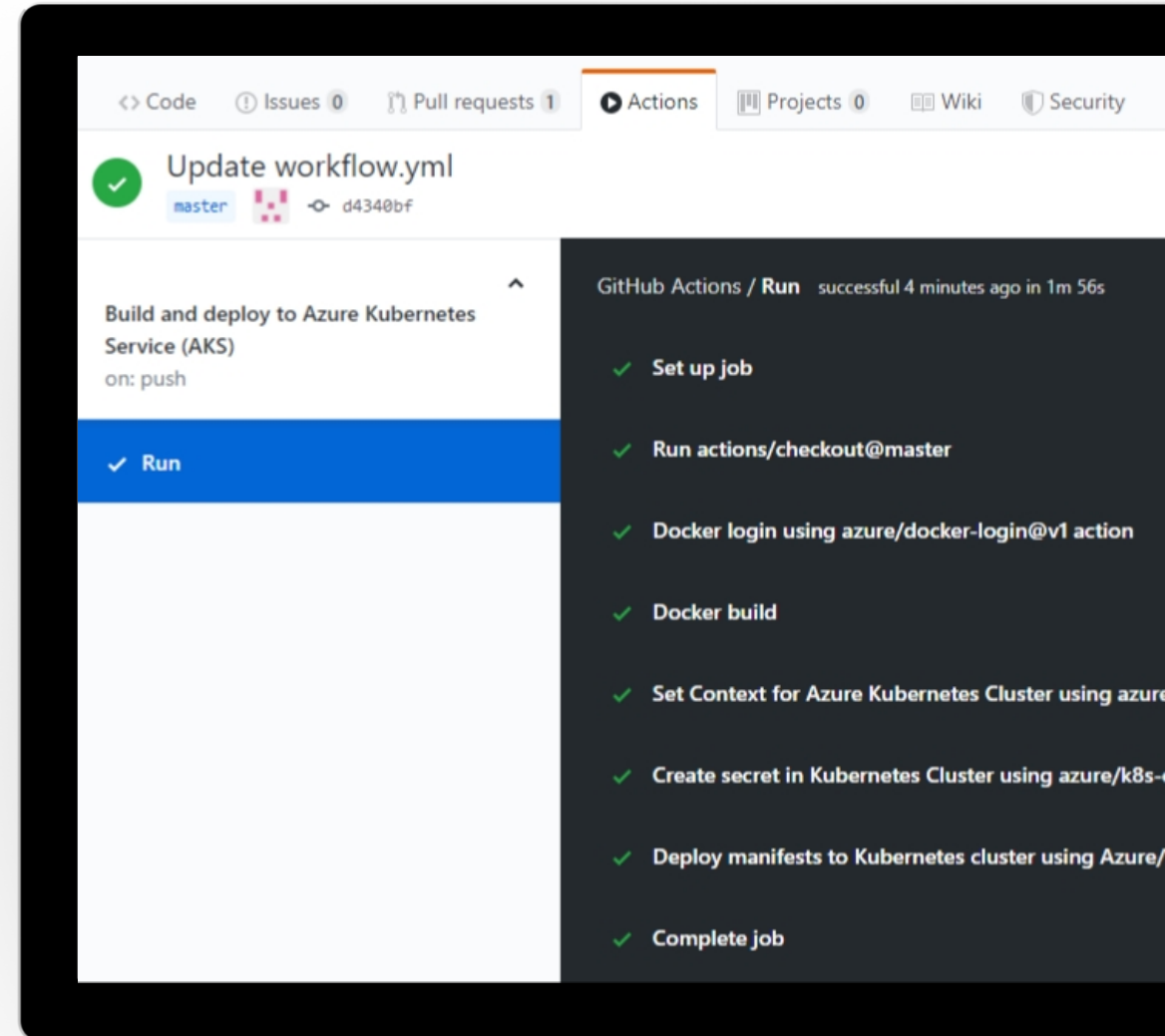
## Unified authentication

Sign into Azure with your GitHub credentials and authenticate to GitHub Enterprise with Azure AD.



## Observability for DevSecOps teams

Access a holistic, 360-degree view across CI/CD pipelines and runtime resources through CI/CD scan assessments in Azure Security Center.



# GitHub is a critical partner for your Digital Transformation (2 of 2)



## Team Collaboration

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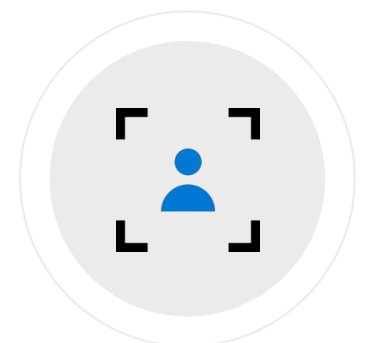
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# Accelerating the delivery of new and more innovative services



ACADEMY  
OF MOTION PICTURE  
ARTS AND SCIENCES

"Delivering a compelling streaming app was critical for achieving buy-in from our membership, especially given that our goal was to stop distributing films on physical media within the next few years."

**-Bev Kite**  
Chief Information Officer



View full customer story in <https://bit.ly/3pchUkr>

## Challenge

Much of the organization's information existed on paper or in isolated on-premises databases. To streamline its IT development and better serve its membership, the Academy wanted to migrate its infrastructure to the cloud.

## Solution

Using Microsoft development tools on the Azure cloud platform, the Academy now delivers a rich, responsive online experience to its members across a range of devices.

## Results



Visual Studio Live Share to collaboratively view, edit, and debug shared code.



Full digital rights management protection.



Cloud migration and new streaming apps.

# Accelerating the delivery of new and more innovative services



**bertrandt**

“Azure comes with the Key Vault function for encrypting customer data – encryption is a must, especially when customers ask us to process their data in the cloud.”

**-Michael Schneider**  
Head of Sales

## Challenge

Providing and integrating everything from chassis mechanics and electromobility components to the vehicle’s connection to the cloud, as well as detailed maps that precisely plot road signs, traffic lights, lanes, and sidewalks within a few centimeters.

## Solution

The neural networks required for developing the algorithms run entirely in the cloud. Thanks to the almost unlimited computing power of the cloud, the algorithms can be put through their paces using a variety of driving situations.

## Results



Better software and cloud development.



Encrypting customer data without Microsoft ever having access to the encryption keys.



More efficient interplay of development, operation, and quality assurance.



View full customer story in <https://bit.ly/3wLH1No>

# Thank you.