Jay Mollet

Senior Designer

Prior Work – AML Case Study

Presenting my past work

Azure Machine Learning Studio

Day Zero Landing Experience

Azure Machine Learning (AML) Studio

Day Zero Landing Experience

General Audience Release – June 2020

My Role
Senior UX Designer
(Contractor – Kforce Inc)

My Team
Product Manager I

Project Goal
Improve number of subscriptions initiating workspace creation moving to model training or registration by 20%.

Product alignment with Azure Cloud Service marketing strategies and Cloud + AI design best practices.

Company Goal
Build mission-critical solutions that can analyze images, comprehend speech, make predictions using data, and imitate other intelligent human behaviors using Azure AI.

User Goal
"As an AML Studio user, I want to easily create a new machine learning project the first day I use the product."

Target Users
All Azure/AML Studio users (web, desktop) including data scientists, machine learning analysts, app developers, machine learning engineers, project admins and managers.

"It's daunting … I'm just not sure how to even find my datasets, or how to plug them in."
– data scientist

The Problem

New users are not engaging with the product on the first run experience, and they are not taking the initial steps to create a machine learning project.

It's a problem when users navigate multiple entry points with dissimilar experiences, only to find an empty pivot page with no assets available to them.

Non-engineers and users unfamiliar with machine learning projects typically need guidance and a clear call-to-action on their first day of use, i.e., Day Zero.

New users are presented with a myriad of choices, including: two New buttons, three Start CTAs, six plus tutorials and three or more links.


Azure Machine learning studio (Preview)

Sign in

Preview	Microsoft Azure Machine Learning

weastler01-enterprise > Home

+ New
⌂ Home

Author
▤ Notebooks
↯ Automated ML
⊹ Designer

Assets
▣ Datasets
⚗ Experiments
⊹ Pipelines
▢ Models
☁ Endpoints

Manage
▭ Compute
▤ Datastores
✎ Data Labeling

Welcome to the studio!

+ Create new ˅	Notebooks Code with Python SDK and run sample experiments.	Automated ML Automatically train and tune a model using a target metric.	Designer Drag-and-drop interface from prepping data to deploying models.
	Start now	Start now	Start now

Tutorials

⚗ What is Azure Machine Learning? | ▤ Train your first ML model with Notebook | ↯ Create, explore and deploy Automated ML experiments.

⊹ What is Azure Machine Learning designer? | ▭ What are compute targets in Azure Machine Learning? | ☁ Deploy models with Azure Machine Learning

View all tutorials →

Links

Blog Follow us and find updates	**Documentation** Find step-by-step tutorials, concepts, how-to guides, and more

No Compute Instances to display

Empty states usually appear when a user has no access or permission, or when there is no resource or subscription.
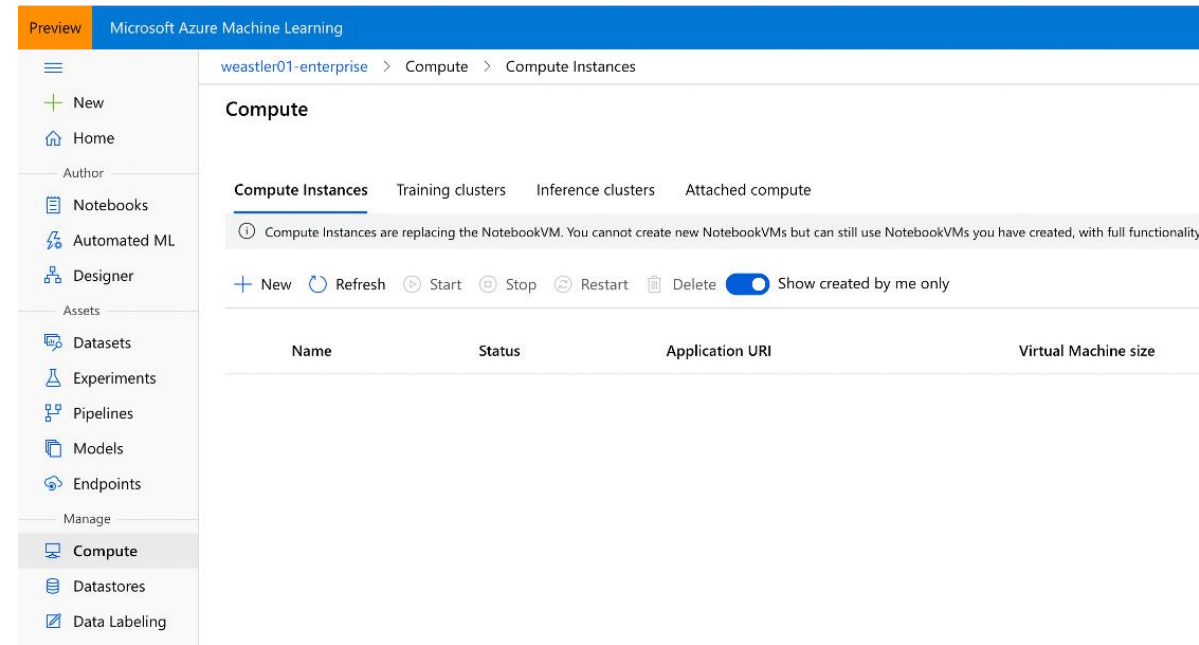
Discovery Process & Research

Initially, the project was scoped as design for Empty States, or pages without data sets. After an in-depth audit of the experience, I proposed that an engaging Get Started pattern might be more effective.

The AML Studio preview release needed closer alignment with Azure services, and I began seeking existing research and tested design patterns from colleagues outside my immediate team.

The preview featured default Fabric illustrations, but I championed the custom Azure isometric brand to provide continuity with the customer portal, as well as for the inherent subject matter appropriateness and compelling visual appeal.
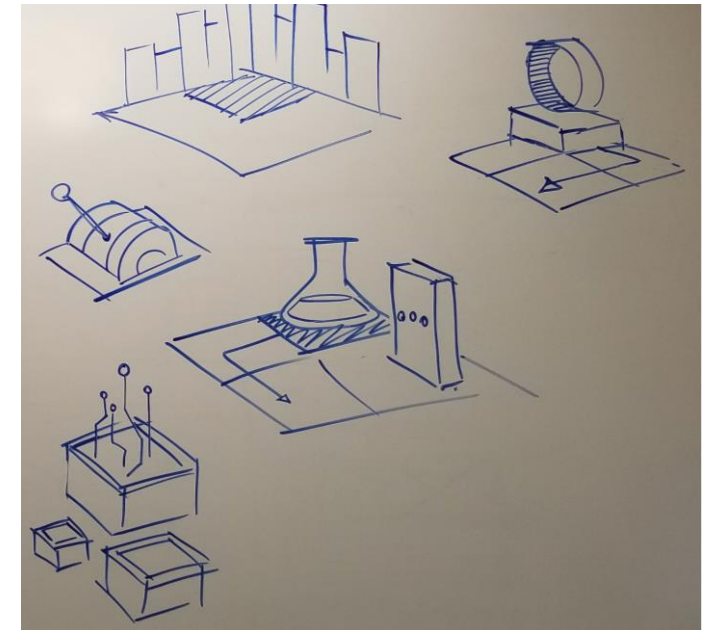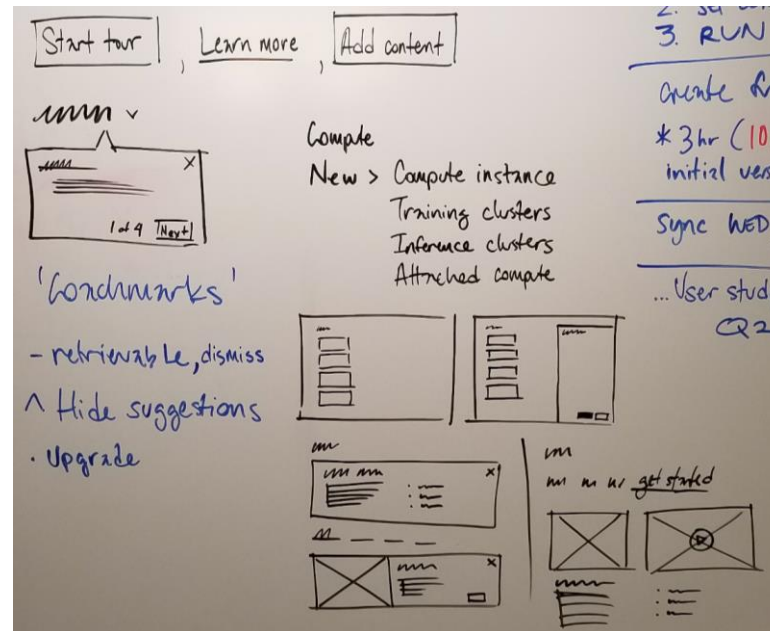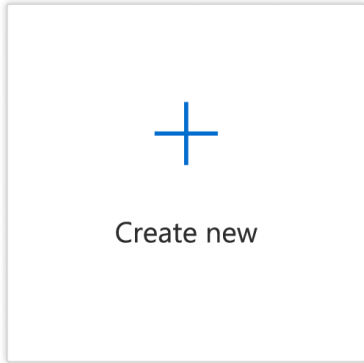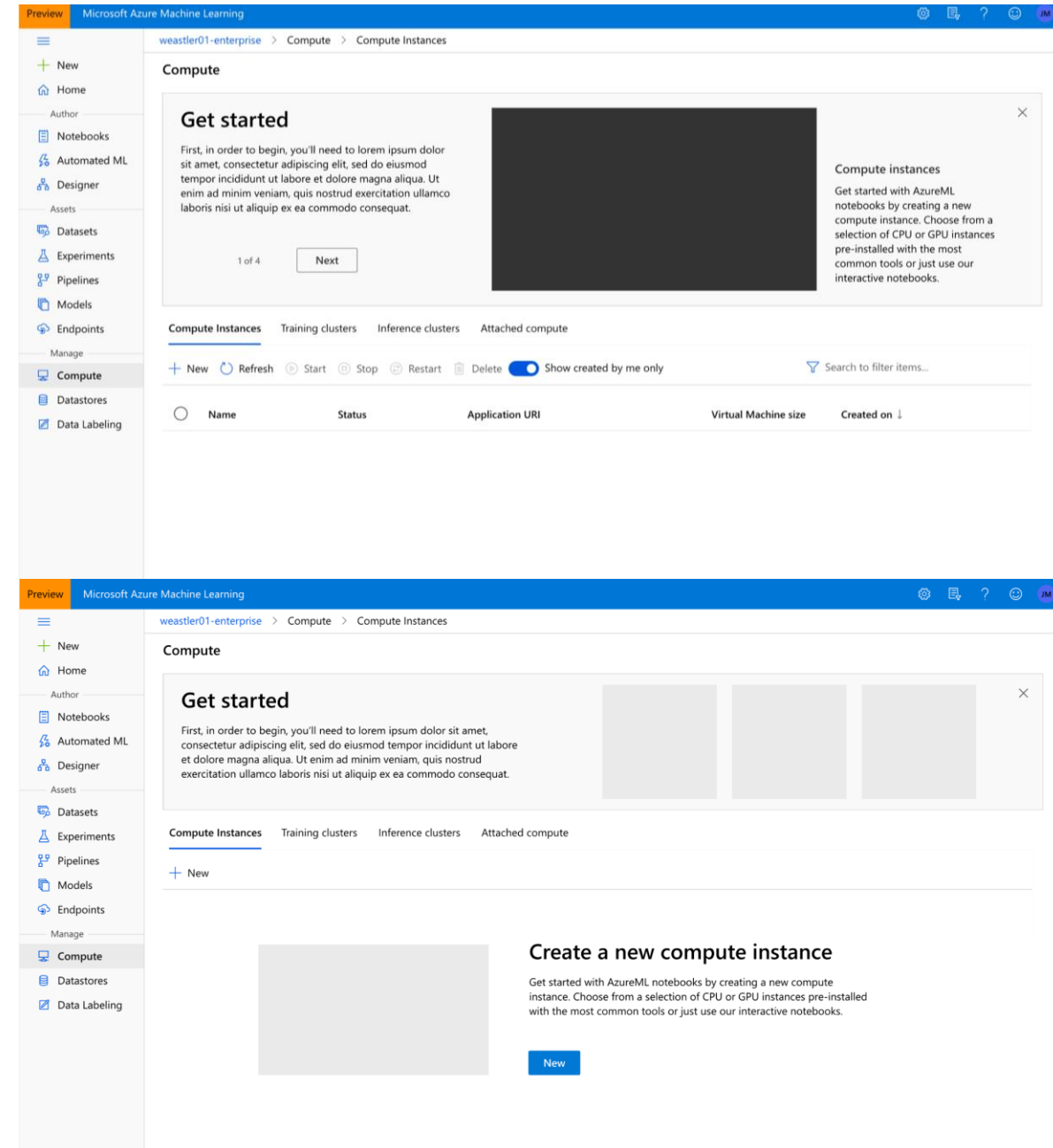
Design Iteration

I suggested we use a single word for the CTA, either Create. Create was most scalable across the product pages, but we also planned for Learn and Launch to be included.

Early on, I proposed that empty tables, action bars and disabled buttons should be hidden, ensuring the CTA button would be perceived as the primary action on the page.

Get started video content was deemed out of scope for this project, so I suggested we provide links to the existing tutorials page.

A hybrid approach could display rich get started content above, and a limited action bar and CTA below.

Displaying a limited action bar would provide two New buttons, each performing the same action, which could confuse users.

Monitor & Visualize Metrics

Metrics are numerical values available from Azure Resources helping you understand the health, operation & performance of your systems.

Explore metrics

Design Iteration

Following the Azure branded Get Started pattern, the proposed Day Zero template should include a custom illustration, value proposition and call to action (CTA) button.

As I began to create the isometric illustrations, I sought ownership guidance from the Azure illustration team and cycled reviews for feedback and awareness.

Experiments

Create new experiments

With Azure Machine Learning experiments, you can view information about experiments and runs, track run status, logs, metrics and visualize performance across runs.

Notebooks
Code with Python SDK and run sample experiments

Start

Enterprise edition
Choose from three authoring tools when you upgrade.

Upgrade

GitHub
Explore the Azure Machine Learning repository on GitHub, where you can lorem ipsum dolor sit amet and dolor ipsum lorem.

View GitHub repository

Learn more
Get started with Azure Machine Learning and learn how to streamline the building, training and deployment of your models.

View all Azure Machine Learning tutorials

There was a large amount of initial content to display and the layout quickly became cluttered.

Utilizing the Azure library, I struggled to create simple compositions of complex machine learning concepts like Datasets, Compute and Experiments.
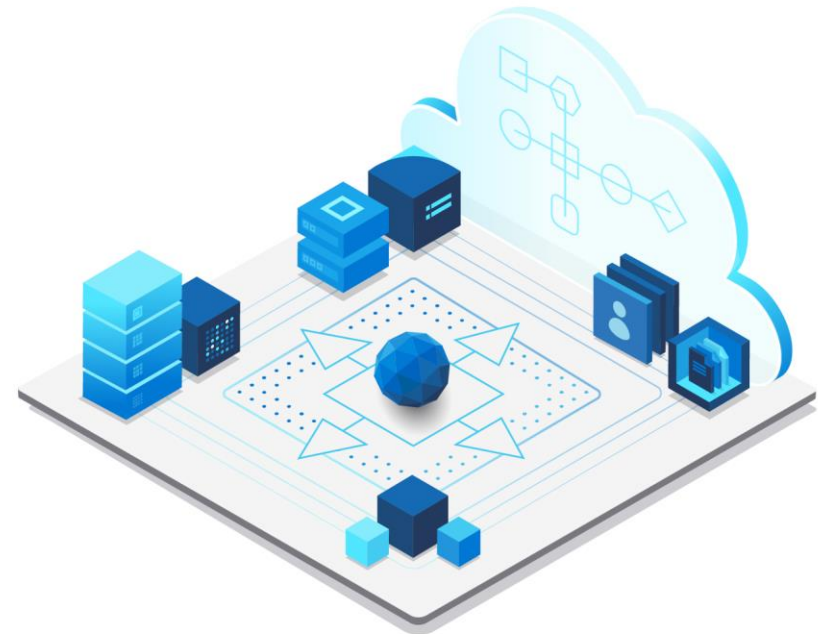
The Solution

I was eventually able to reduce the complexity of the illustrations, relying on repeating elements and templated layout.

A consistent experience and page template was agreed upon, however we had trouble aligning the exact copy and limiting associated hyperlinks.

The responsive design for mobile web scaled the image appropriately and pushed the content to the left rail.

I was instructed on best practices for asset export, so that engineering could consume the images and display them correctly.

We deviated from the Azure template with left justified content, rather than center aligning the text and buttons below the image.
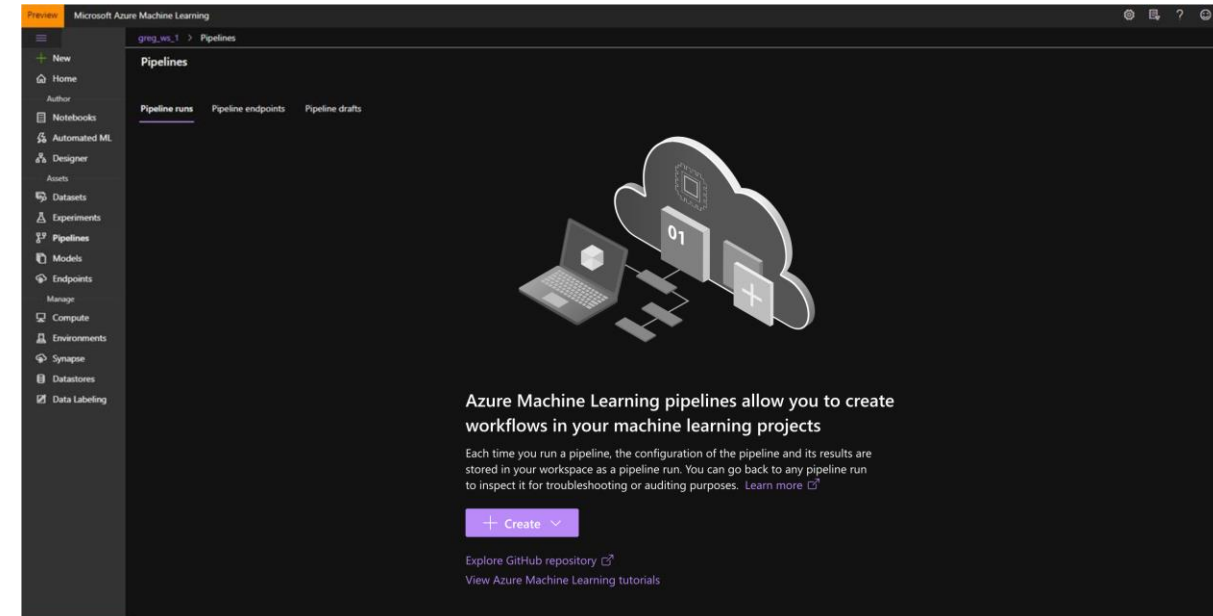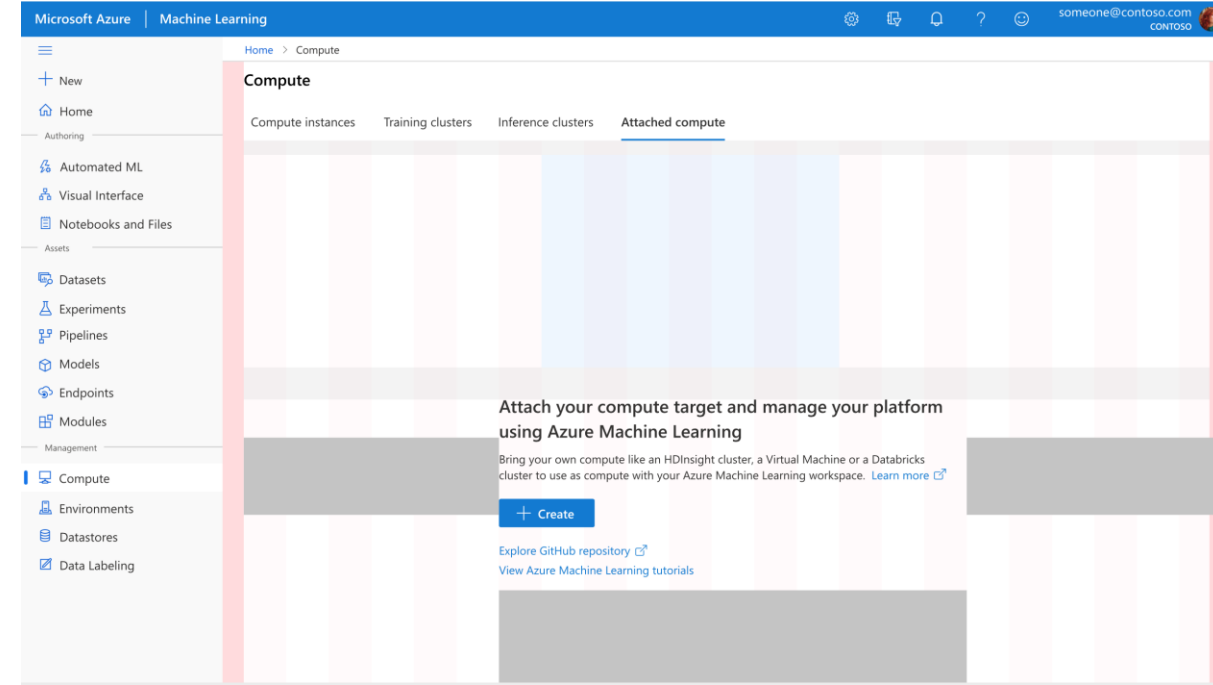
I prepared dark theme compositions and suggested that the engineers might programmatically display the .png file using a luminosity filter approach.

someone@contoso.com
CONTOSO

New

Home

Authoring

⚡ Automated ML

Visual Interface

Notebooks and Files

Assets

Datasets

Experiments

Pipelines

Models

Endpoints

Modules

Management

Compute

Environments

Datastores

Data Labeling

Home > Datasets

Datasets

Registered datasets   Dataset monitors

Share seamless data and collaborate with others when you create new registered datasets

With Azure Machine Learning datasets you can keep a single copy of data in your storage referenced by datasets and seamlessly access data during model training without worrying about connection strings or data paths. Learn more ⧉

+ **Create** ⌄

Explore GitHub repository ⧉
View Azure Machine Learning tutorials

someone@contoso.com
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New

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Datasets

Registered datasets   **Dataset monitors**

Configure dataset monitors to detect data drift between training dataset and inference data

Register training data as datasets and enable model data collection for models deployed in production as a prerequisite to create dataset monitors. Learn more ⧉

+ Create

Explore GitHub repository ⧉

View Azure Machine Learning tutorials

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New

Home

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Experiments

Pipelines

Models

Endpoints

Modules

Management

Compute

Environments

Datastores

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Home > Pipelines

Pipelines

Runs   Endpoints   **Drafts**

When you edit a pipeline your progress is saved as a pipeline draft

Build your machine learning pipelines with a drag-and-drop experience in the designer or by coding in an integrated notebook. As you edit a pipeline, your progress is saved as a pipeline draft, which you can edit at any point. Learn more ⬈

┌─────────────────────┐
│ + **Launch** ⌄ │
└─────────────────────┘

Designer

Notebook   utorials

The Outcome

The Day Zero Landing Experience shipped as a part of the general audience release in June of 2020.

The designs helped guide new users deeper within the product and provided relevant AML tutorials, as well as GitHub and Microsoft Docs links within the context of each pivot tab.

My Illustrations were included in the Azure illustration library and categorized as complex, as an example and inspiration to future designers.

Reflections

I really enjoyed this project, especially the visual design aspect. Working with the Azure isometric brand was a real treat, as I'm particularly fond of that style or art.

Additionally, I think the compositions reflect the complexity and technical aspects of machine learning, while providing value to users as the main component of an imaginative and delightful onboarding experience.

The illustration work was absorbed by the Azure team and a recent visit to the portal suggests that my work may have influenced similar imagery.

Ultimately, there were eight variations of the isometric illustration: Registered Datasets, Dataset Monitors, Experiments, Pipelines, Models, Endpoints, Compute and Data Labelling.

Thank You

Jay Mollet – Senior Designer