

Bart Czernicki

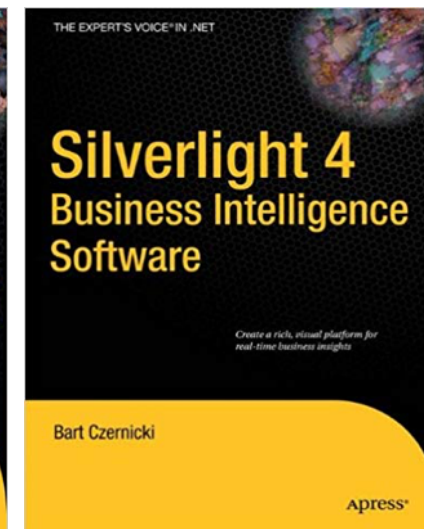
Technical Architect – Advanced Analytics & Artificial Intelligence

- 20 Years Experience in Data, Analytics, Advanced Analytics, Statistics & AI
 - My journey: Data -> BI/Analytics -> Machine Learning/Statistics -> Cognitive AI
- @Microsoft part of various Data & AI teams, lead key technical sales & engineering engagement initiatives with various Microsoft products.
- Subject Matter Expert on the Data & AI team for machine learning
 - @Microsoft - Worldwide AI & Machine Learning Community Subject Matter Expert
- Prior to Microsoft, ran the technology for two BI & analytics organizations
- Author of two books on Business Intelligence 2.0, currently working on a 3rd book: *“Uncovering Sports Insights with Advanced Analytics”*

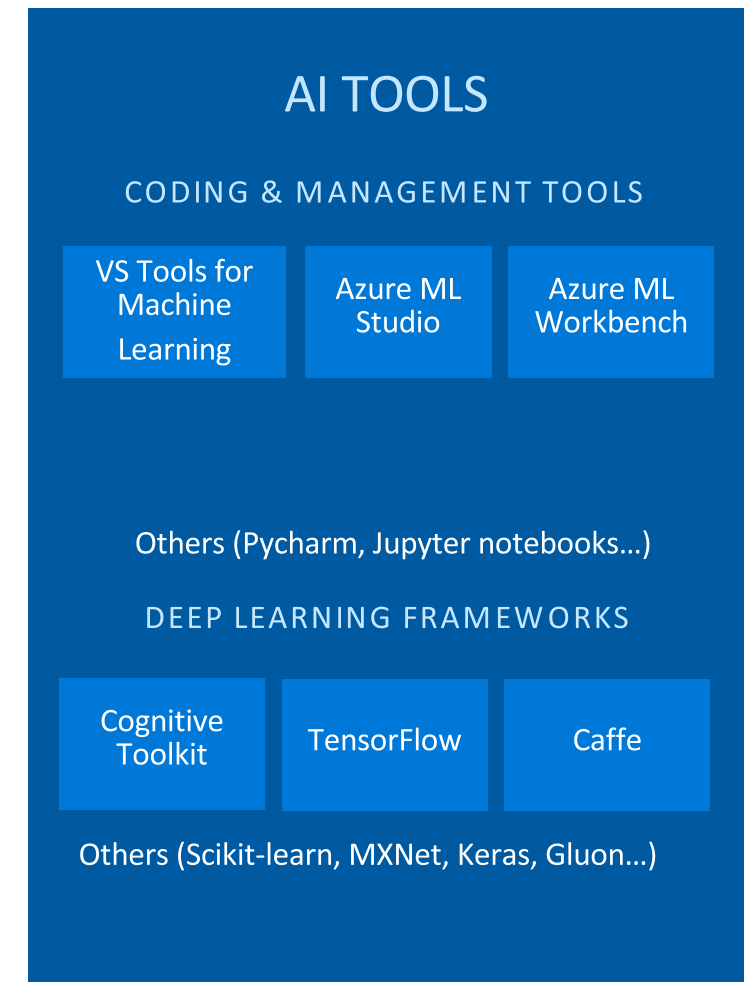
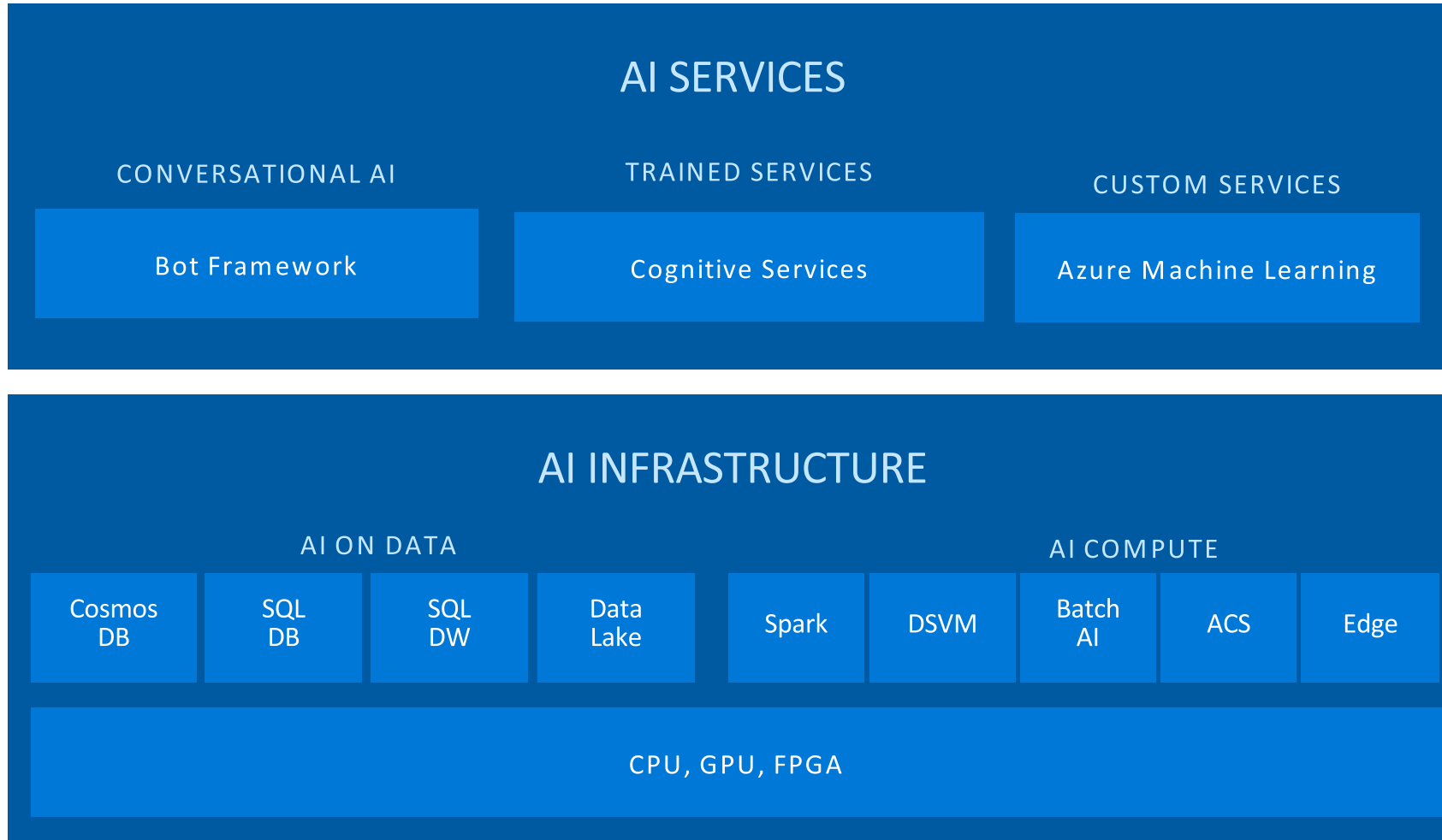
LinkedIn: <https://www.linkedin.com/in/bartczernicki>

Twitter: @bartczernicki

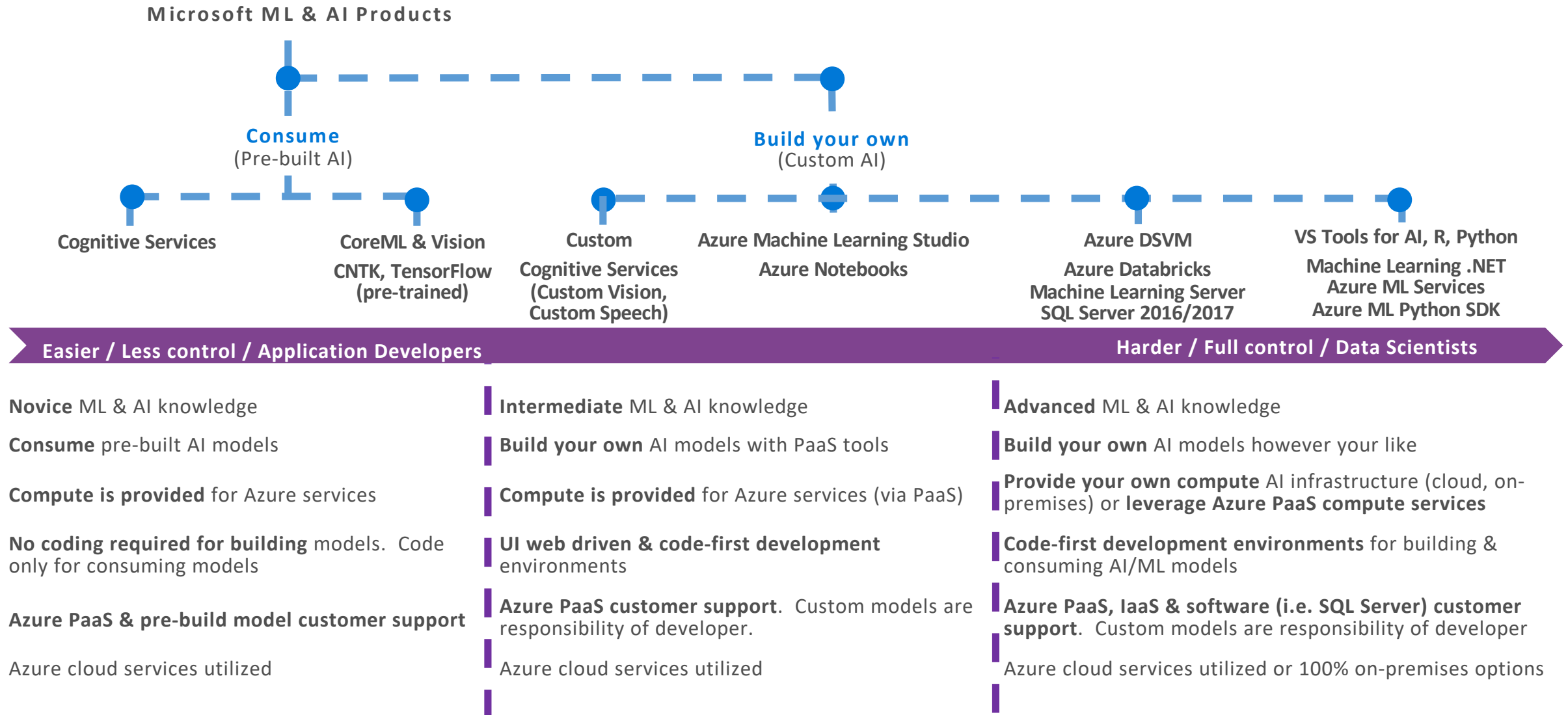
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Microsoft AI Platform



Microsoft AI Platform Products (Consume vs Build)

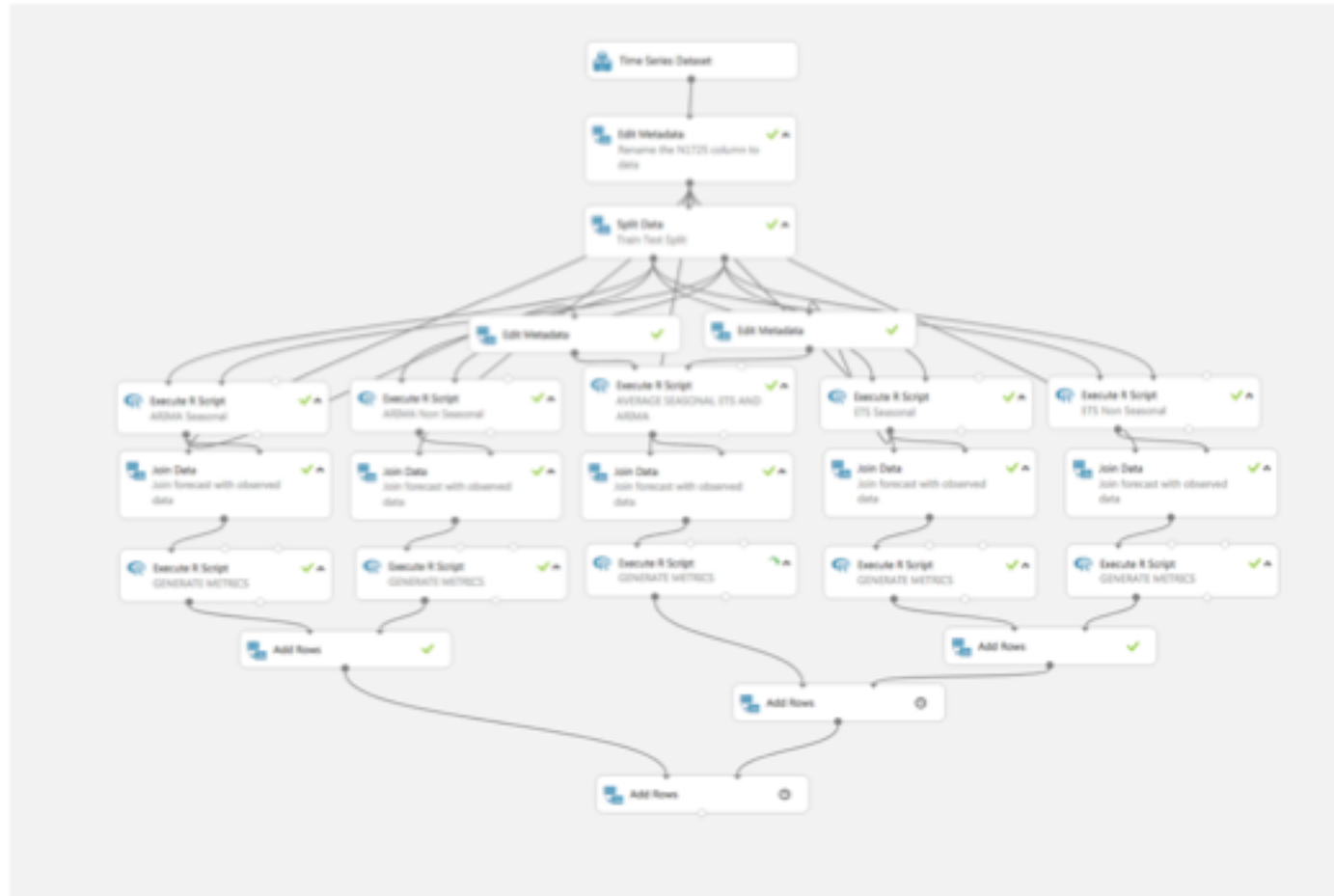


R Language/Runtime on the Microsoft AI Platform

- **Microsoft R Open**
 - Microsoft compiled R Distribution of CRAN R with Intel MKL libraries & Package Time Machine
- **Microsoft Machine Learning Server 9.x**
 - End-to-end Machine Learning with R libraries that can scale implicitly in parallel & beyond the core server memory
 - Includes development, training & operationalization of models
- **R Packages by Microsoft**
 - Commercially supported R packages for maximum parallelism, cluster node scale to hundreds of TBs
- **Azure Machine Learning Studio**
 - Extend Microsoft ML workflows with custom R scripts/models
- **Power BI Desktop / Service**
 - Craft and host dashboards with R statistical scripts & models
- **Data Science Virtual Machine (Deep Learning Virtual Machine)**
 - Elastic Azure compute for training R models on CPUs/GPUs & RESTful service operationalization
 - Linux & Windows Server
- **SQL Server 2016/2017 & Azure SQL Database**
 - Deploy R models close to the data for dramatic scoring optimizations
- **Azure Databricks**
 - Unified Spark Advanced Analytics (use R Studio to connect)
- **Azure Data Lake Analytics**
 - Query as a Service using the U-SQL language can be used for training and scoring R scripts/models for very large data
- **HDInsight**
 - Azure Hadoop Service with R extension
- **Three Different R Development Client**
 - Microsoft R Open, Visual Studio Code & Visual Studio 2015/2017
- **Artificial Intelligence Gallery**
 - Centralized location for AI solutions, models (including R)

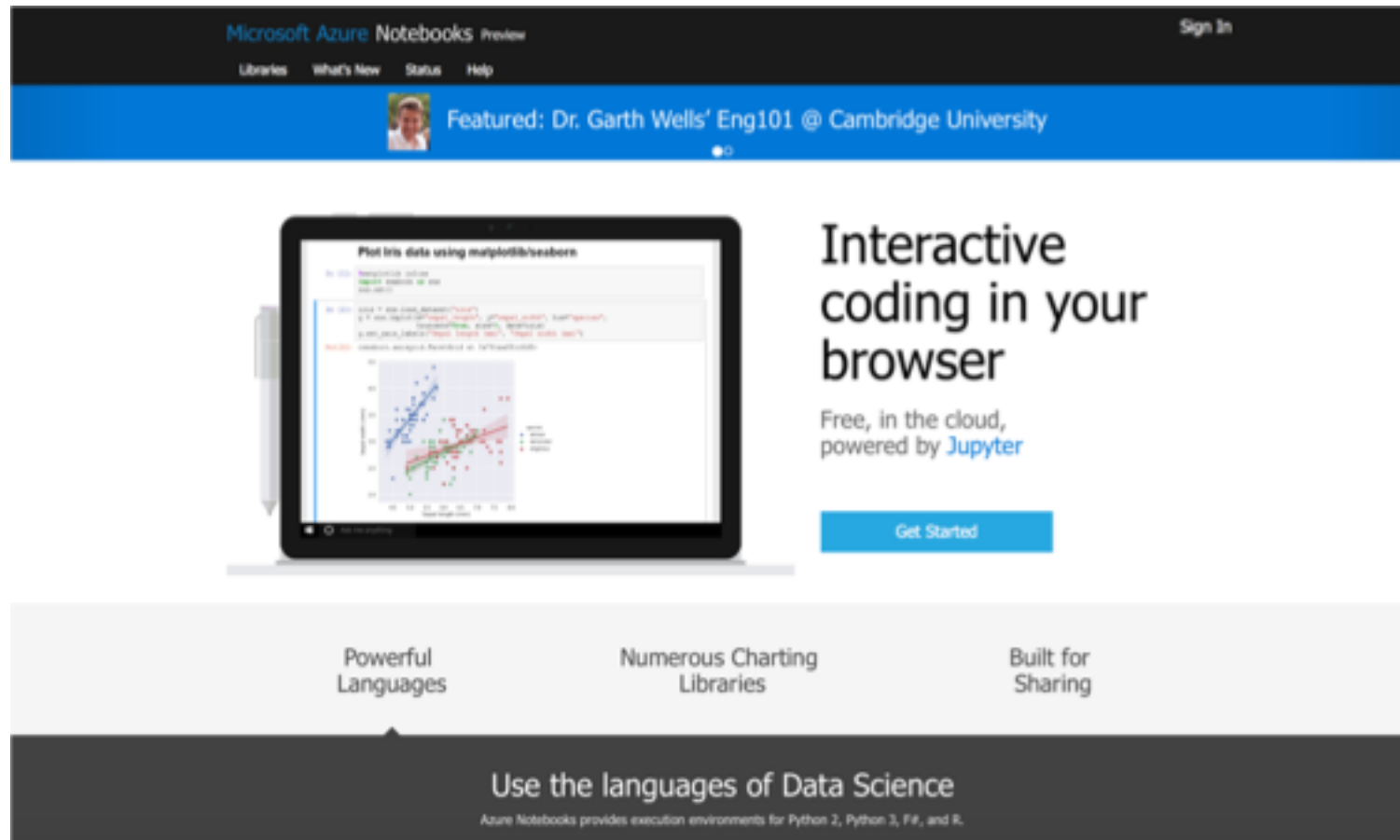
Demo – Azure ML Studio with R

- FREE to get started (training & dev/test prediction/retraining Web APIs)
- Get Started: <https://studio.azureml.net>



Demo – Azure Notebooks

- 100% FREE Jupyter library hosting
- Get Started: <https://notebooks.azure.com>



The screenshot shows the Microsoft Azure Notebooks website. At the top, there's a navigation bar with 'Microsoft Azure Notebooks' and a 'Preview' link. Below this, a blue banner features a profile picture and the text 'Featured: Dr. Garth Wells' Eng101 @ Cambridge University'. The main content area includes a laptop displaying a Jupyter notebook with a scatter plot titled 'Plot iris data using matplotlib/seaborn'. To the right of the laptop, the text 'Interactive coding in your browser' is displayed, followed by 'Free, in the cloud, powered by Jupyter' and a 'Get Started' button. At the bottom, three features are listed: 'Powerful Languages', 'Numerous Charting Libraries', and 'Built for Sharing'. A dark footer contains the text 'Use the languages of Data Science' and 'Azure Notebooks provides execution environments for Python 2, Python 3, F#, and R.'

Microsoft Azure Notebooks Preview

Libraries What's New Status Help

Sign In

Featured: Dr. Garth Wells' Eng101 @ Cambridge University

Plot iris data using matplotlib/seaborn

Interactive coding in your browser

Free, in the cloud, powered by Jupyter

Get Started

Powerful Languages

Numerous Charting Libraries

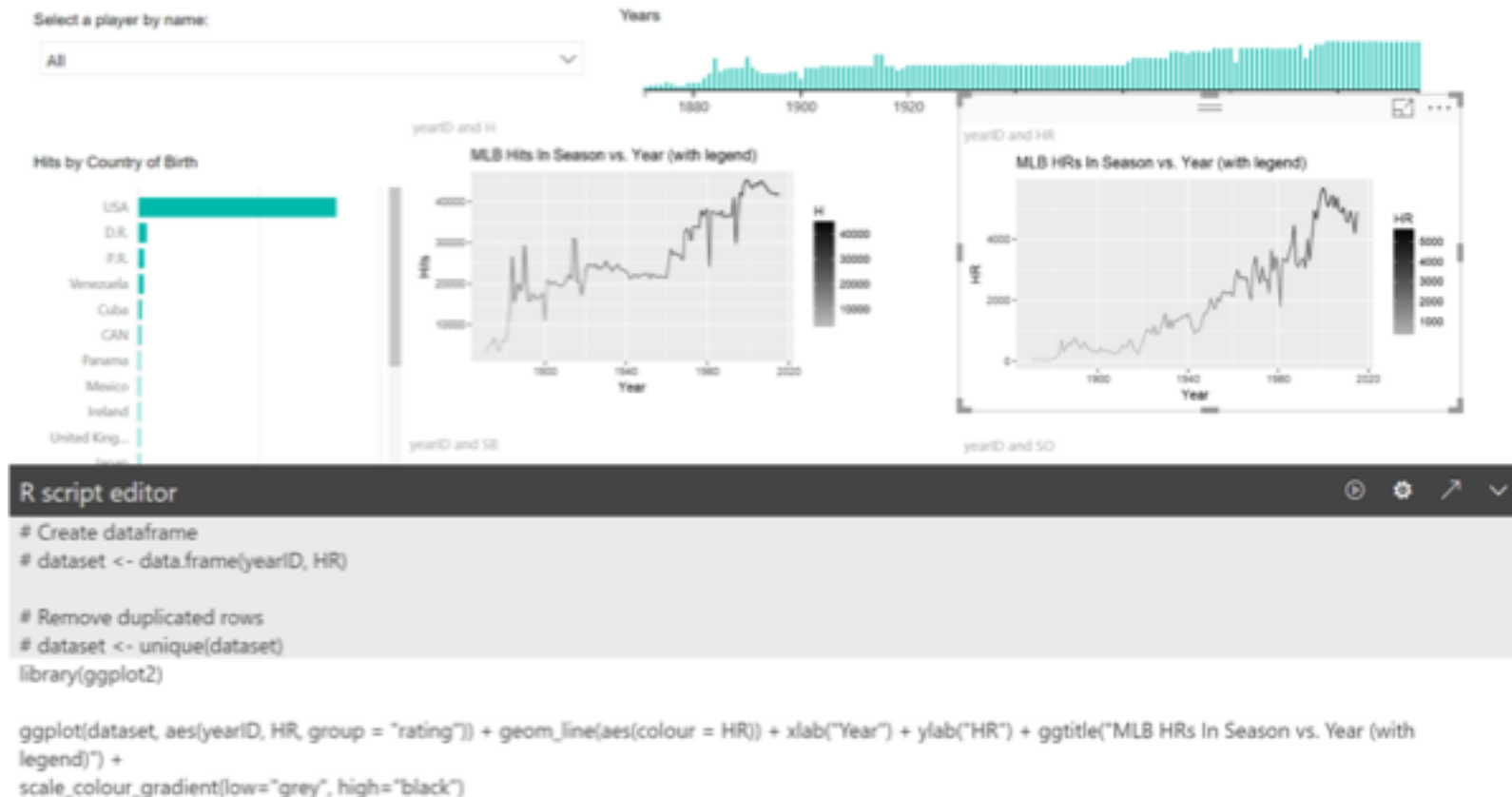
Built for Sharing

Use the languages of Data Science

Azure Notebooks provides execution environments for Python 2, Python 3, F#, and R.

Demo - Power BI Desktop & Power BI Service

- FREE Dashboard authoring, scale to service as needed
- Get Started: <https://powerbi.com>



Demo – Azure AI Gallery

- Full predictive solutions, experiments, pre-trained models
- Get Started: <https://gallery.azure.ai>

