Dr. Gaiye “**Gail**” Zhou has been with Microsoft for over 7 years. She spent the first 5 years helping customers migrating data warehouses into Azure Synapse (APS/PDW, Netezza, Teradata, SQL Server, Redshift, Google Big Query). She used Python and PowerShell to automate code translation and data migration. She created and published migration processes to GitHub which are well utilized. In the last 2-3 years, she has supported pre-sales and delivery projects, and partnered with the Early Access Engineering Team to develop and publish solution accelerators to accelerate our customers’ business innovation.

Gaiye is experienced with C, C++, Java, C#, Python, SQL, PowerShell, Bicep, and Terraform. She started her career as a software engineer at AT&T, where she developed software and led project teams to develop and deploy large-scale high-volume transaction systems into production. Later she moved into director of enterprise architecture role to lead technology consolidation to support regularly planned network and solutions upgrade.

In the next stage of her career, she held leadership roles such as Chief Architect at NTT Data, Director of Strategic Business Architecture at Bank of America, Director of Enterprise Information Architecture at Fiserv, to continue leading technology transformation and consolidation programs.

Her philosophy for work is to keep innovating and keep delivering repeatable and well documented processes and solutions that are secure, simple, scalable, extensible, and require minimal support.

She is an inventor with two awarded patents in wireless communications (7,139,722 & 6,925,586).

Dr. Gaiye Zhou holds a PhD in Electrical and Computer Engineering from the University of Tennessee. Her PhD dissertation created three methods to automatically design a PID controller using Machine Learning, Simulated Annealing, and Fuzzy Logic.

**Pioneered AI/ML application in Process Control**

[PID autotuner design using machine learning | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/document/274411), [Automation of PID Autotuner Design for Complex Systems - ScienceDirect](https://www.sciencedirect.com/science/article/pii/S1474667017586681),

[Fuzzy logic-based PID autotuner design using simulated annealing | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/288947)

**Contributions to GitHub IP/Repositories and YouTube Videos**

[AzureDWScriptsandUtilities/APS to SQL DW Migration - Schema and Data Migration with PolyBase at master · microsoft/AzureDWScriptsandUtilities (github.com)](https://github.com/microsoft/AzureDWScriptsandUtilities/tree/master/APS%20to%20SQL%20DW%20Migration%20-%20Schema%20and%20Data%20Migration%20with%20PolyBase)

[microsoft/AzureSynapseScriptsAndAccelerators (github.com)](https://github.com/microsoft/AzureSynapseScriptsAndAccelerators)

[AzureSynapseScriptsAndAccelerators/Migration/SQLServer at main · microsoft/AzureSynapseScriptsAndAccelerators · GitHub](https://github.com/microsoft/AzureSynapseScriptsAndAccelerators/tree/main/Migration/SQLServer)

[Migrate SQL Server to Azure Synapse Analytics - YouTube](https://www.youtube.com/playlist?list=PLTPqkIPx9Hx8QJnYh45aewA_60Kw3x1Ia)

[Automate PDF forms processing - Azure Architecture Center | Microsoft Learn](https://learn.microsoft.com/en-us/azure/architecture/ai-ml/architecture/automate-pdf-forms-processing)

[GitHub - microsoft/Azure-PDF-Form-Processing-Automation-Solution-Accelerator](https://github.com/microsoft/Azure-PDF-Form-Processing-Automation-Solution-Accelerator)

[GitHub - microsoft/Intelligent-Field-Service-Solution-Accelerator](https://github.com/microsoft/Intelligent-Field-Service-Solution-Accelerator)

[GitHub - microsoft/Azure-Invoice-Process-Automation-Solution-Accelerator](https://github.com/microsoft/Azure-Invoice-Process-Automation-Solution-Accelerator)