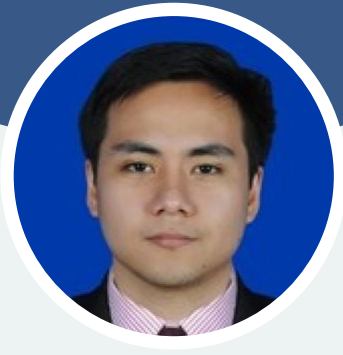





Jeremiah Justin Barias





Basic information

 Jeremiah Justin Barias

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 justinbarias.github.io, github.com/justinbarias

Skills

Large Language Model-powered Software Engineering

- Orchestration frameworks (LangChain, Semantic Kernel, PromptFlow)
- Integration with closed source (OpenAI) and open source models (DeepSeek, Llama)
- Grounding data pipeline engineering (data source ingestion, chunking, embedding, indexing)
- Native vector database integration (Azure AI Search, Postgres PgVector)
- End to end LLMops (experimentation, evaluation, deployment, monitoring) with Azure AI Foundry

Data Engineering & Deep Learning

- Data transformation using Python (Pandas, PySpark)
- Deep Learning using Pytorch and

Work experience

Lead Software Engineer

Jul 2024 - Present

Department of Employment and Workplace Relations

Highlights/projects:

- * Leads the platform engineering team of 8 software engineers to ship tooling such as libraries, an internal development platform built on Azure to provide a native, developer-first experience for build teams in the department to ship cloud-native, resilient, and secure distributed applications.
- * Build and design department-first LLM tooling such as - a secure, developer-native, AI experimentation platform rated for Protected data. Built on Azure AI Foundry, this allows protected devices to upload protected department data for experimentation using the Azure AI Services (Document Intelligence, Vision, Speech etc) and foundry models including OpenAI and opensource LLMs. Also developed a department-first native evaluation framework library loosely based off promptflow for the Dotnet framework.
- * Led a cross cutting systems team to accelerate delivery of 6 software engineering teams on a \$30m project - a complex distributed systems that handles funding and payments for higher education and school entities in Australia.

Senior Consultant - Software Engineering & AI

Oct 2020 - Jun 2024

Microsoft Australia Pty Ltd

Highlights/Projects:

Large Language Model Proof of Concept for a Microsoft ISD (CTS-DEM) Internal Tools

- Identify LLM use cases for existing catalog application
- Leverage frameworks like Semantic Kernel, and LLMs like Azure Open AI to build intelligent assistants and features for existing capabilities
- Release and integrate into existing .NET7 Blazor Web App
- Implement retrieval augmented generation to accelerate key workflows in existing application
- Led design and engineering of LLM feature to MVP release

Data Ingestion Platform for Sustainability Platform for Top 1 Telco

- Led design of data ingestion pipeline for sustainability platform
- ETL for power, water, and other Scope 1 & 2 Emission sources
- Calculation models for CO2 Eq emissions for multiple financial years
- Development of data engineering pipeline using Python
- Design & development of custom Emissions Dashboards
- Integration & customization of Microsoft Sustainability Manager
- Extend out of the box pages and views
- Extend default Sustainability data model

Microsoft ISD (CTS-DEM) Internal Product Development

- Modernisation of Data ingestion toolkit for Cloud Migration Projects
- Management of dev team of 2-4, across multiple timezones
- API development (ASP netcore, EF core)
- SPA development (Blazor)
- Released to 5 live projects globally
- Performed global enablement & knowledge management

Cloud Operating Model for AUS Federal Government Department Development of a customised (ISM based) governance, risk & compliance platform

Keras

- MLOps using Azure Machine Learning Workspaces

Distributed Software Engineering & Architecture

- Domain Driven Design
- Cloud Native Design Patterns
- Cloud Resiliency Patterns
- Distributed Transaction Patterns

Front End Frameworks

- Angular2-4
- ReactV16
- ASP.NET Blazor
- VueJS

Full Stack Software Engineering

- Python
- Typescript
- GoLang
- .NET 4.x, .NET core , .NET8 (ASP.NET, ASP.NET Core)

Testing

- .NET/.NET core xUnit, MSTests, NUnit
- Powershell Pester
- Selenium (.NET)
- Javascript/Typescript - Mocha

Data modelling & Management

- NoSQL (MongoDb, Azure CosmosDb)
- SQL (Postgres, Azure SQL, MS SSQL)
- ORMs (Entity Framework)

Cloud Compute & Orchestration

- Containers, Container Orchestration (Kubernetes, Docker Compose, Azure Kubernetes Services, Google Kubernetes Engine)
- Microsoft Cloud Platform (IaaS, PaaS, Functions, ExpressRoute, Core Networking, Core Storage)
- • Amazon Web Services (EC2, S3, VPC, Cloudformation)
- • Microsoft Core Infrastructure Solutions (Windows Server, Windows Server)
- Virtualization, System Center Datacenter Management & Automation)
- • Google Cloud Platform (GKE, GCE)

- Data ingestion from multiple sources like Azure Platform APIs, ARM, Azure Activity Logs, Azure DevOps, Github
- Development of data processing pipelines on:
- Azure Functions with KEDA on K8S Azure Synapse Spark (Python)
- Build & Release tooling for Azure Functions on AKS (using Flux - GitOps) Python Spark Jobs SQL Data Jobs (t-sql, .sqlproj)

Cloud Operating Model for Top 3 Australia Bank

Development of a governance, risk & compliance platform for a custom Risk Framework

- Data ingestion from multiple sources like Azure Platform APIs, ARM, Azure Activity Logs, Jenkins, Custom APIs, ServiceNow
- Development of Realtime dashboards on:
- Azure Functions
- CosmosDb Change Feed API
- Development of data processing pipelines on:
- Azure Functions
- Build & Release tooling for
- Azure Functions

Premiere Field Engineer (Modern Applications & DevOps/SRE)

Feb 2018 - Oct 2020

Microsoft Australia Pty Ltd

Highlights/Projects:

Engineered a platform for onboarding feature teams for leading bank in Australia unto Azure

- Custom Tooling for Azure AppServices
- Telemetry for Legacy Applications (App Insights)Release strategy advise for Azure App Services
- Cloud native best practice advise (Circuit breaker patterns, feature flagging) Engineering assistance to onboard mobile bank app APIs (distributed services)

Cloud Tooling Revamp & Redesign for leading bank in Australia for Azure

- Terraform for End-to-End cloud infrastructure
- Wrote new Azure modules for Terraform provider (GoLang)
- .Net Core + React&Redux
- Azure SQL

Serverless Data Ingestion Platform for leading bank in Australia on Azure

C# .NET Core

- Unit Testing Serverless Functions
- CI/CD for Serverless Endpoints
- Event-driven pub/sub messaging

Build & Release Pipeline Transformation for an Australian Federal Government Department

- Migration to a SaaS-based CI/CD tool
- Best practice guidance for 40+ agile teams on implementing CI (branching strategy, feature flagging)
- Release management strategy guidance for 60+ SoA-based applications

Site Reliability Engineering Lead

July 2017 - February 2018

MedicalDirector

Highlights:

- Transformation & optimization of release pipeline (single click releases)

Scripting & Infrastructure Code

- Terraform
- Azure Resource Manager Templates
- CloudFormation templates
- Ansible

Build & Release Tooling

- Jenkins
- Azure DevOps Services
- Octopus Deploy

- Cloud infrastructure cost optimization
- Cloud infrastructure automation(single click environment provisioning & immutable infrastructure)
- Provides DevOps/Site Reliability Engineering thought leadership within the organisation
- Accelerate previously non-standard release cycles into monthly releases
- Source control workflow/strategy implementation
- Domain-driven design & cloud-native application architecture for leading Australian healthcare SaaS
- De-risked releases by enabling blue-green/red-black releases

Senior Cloud Consultant

May 2016 - July 2017

Readify Pty Ltd (Australia)

Highlights

- Spearheads the DevOps practice within the organisationLed and delivered key clients on business productivity transformation engagements (Office 365, Enterprise Mobility)
- Led the definition & execution of a distributed cloud architecture, continuous delivery/integration process, and DevOps for the online platform of the largest retail organisation in Australia.

Technical Solutions Manager

April 2015 - April 2016

Infront Consulting Group Singapore Pte Ltd

Highlights:

Acted as a cloud technology evangelist as a Microsoft focus partner for Mobility and CloudPart of the Microsoft P-Seller programme and acts as a part of Microsoft's sales team on key opportunities

Led complex deal creation all the way from customer education to tender submission

Participated and won some of the first-in-Singapore Microsoft cloud & mobility projects

Various Roles

October 2008 - April 2015

Dimension Data Asia Pacific

Roles:

Microsoft Solutions Researcher (Philippines)

Software and systems engineering for offshore Microsoft Projects

Microsoft Solutions Consultant (Singapore)

Software and systems engineering for offshore Microsoft Projects

Microsoft Solutions Architect (Philippines)

- Turned a zero Microsoft solutions business to a profitable services business in less than 12 months by driving pipeline growth and closing key services deals
- Helped win country partner of the year award & solutions partner of the year award in 2011.
- Closed large, multiple Core Infrastructure Optimization(Private Cloud) and Business Productivity Infrastructure Optimization services engagements
- Managed and grew technical consulting team to 200% of original size within 3 years.

Regional Solutions Architect/Business Development Mgr (Singapore)

- Drove several desktop virtualization & mobility deals to closure

- Crafted go-to-market strategies for Citrix & Cisco-based desktop virtualization & mobility solutions
- Posted 300% revenue growth for Citrix line of business after 9 months (Calendar year)
- Contributed to winning Citrix ASEAN System Integrator of the Year for 2014

Qualifications

- Microsoft Certified Azure Developer
- Microsoft Certified Azure Architect
- Microsoft Certified Engineer Expert - Azure DevOps
- Citrix Certified Engineer
- Citrix Certified Architect
- Australian Computer Society (Member - 2016)
- Institute of Applied Technology Digital - Deep Learning Foundations

Education

Bachelor of Science in Computer Studies
De La Salle University Manila - Philippines

Q2 2006 - Q4 2009

Interests

Renewable and sustainable energy, transport, and software engineering.
Video games and badminton.
Large language models, orchestrators, and deep learning.

References

References available upon request.

Conferences Conducted

ExpertsLive Australia Melbourne April 2017
Continuous Delivery on VM ScaleSets, Powershell DSC, and Visual Studio Team Services
CI, CD, and deploying Apps on Azure Container service via Kubernetes.
DevOps DeepDive Sydney February 2017
Debuzz Devops. Talked about patterns, anti-patterns in building a continuous delivery pipeline
for the Microsoft Stack (VSTS, Powershell, Azure)
Azure Global Bootcamp 2017 April 2017
Continuous Delivery on VM ScaleSets, Powershell DSC, and Visual Studio Team Services
CI, CD, and deploying Apps on Azure Container service via Kubernetes.

Side Projects

Large Language Model Integration for a Security Startup

Jul 2023 - Oct 2023

Design use cases, implement, and ship a large language model capability with a security detection app

As a sole contractor, I specialise in helping startups and small businesses in matters regarding Distributed Systems Engineering, Data Engineering, Large Language Model integration and usage, and DevOps.

- Design & Identify LLM use cases for a security detection app
- Leverage frameworks like LangChain, and LLMs hosted services like Azure Open AI to build intelligent assistants and features for existing capabilities
- Optimise retrieval and usage of graph data structures and structured data for large language model consumption
- Implement Data enrichment pipeline to postprocess graph models into LLM-context viable formats
- Implemented continuous improvement, telemetry pipelines to collect quantitative and qualitative feedback on LLM feature usage