



Annex A

MEDIA FACTSHEET

About the Minimum Viable Product (MVP) for the Use Case: “Secure GPT for Healthcare Professionals”

The pilot MVP is a custom-built common platform using Azure OpenAI Service which taps on Microsoft’s solutions and foundational models. It provides a secure infrastructure tailored for Large Language Model (LLM) development that is grounded on responsible AI practices and will serve as a common platform base for accelerating generative AI apps development.

The key features and functions of the MVP are as follows:

- A) To serve public healthcare users (e.g. clinicians, doctors and nurses) through the use of ChatGPT, securely:
 - The model build will be guided by responsible AI, and will make it capable of securely handling Personally Identifiable Information (PII), and fortifying protection of user data;
 - Azure OpenAI Service will also give the model the ability to generate contextual responses from a dedicated healthcare knowledge base, with security and compliance in alignment with healthcare data residency requirements.

Some examples of answering queries through the Secure GPT include “*what are the care protocols for diabetes*” or “*what are the payment subsidy rates*” - where summarised information is retrieved from the consolidated source documents in the knowledge base. This is different from the typical use of search engines where users have to click through the various search results to get to the information.

For patient medical records, the Secure GPT can be used to generate condensed patient information from doctors’ clinical notes and laboratory reports in the electronic medical record system, as well as track medication changes and usage. This saves time and effort for doctors in reading and digesting numerous and lengthy clinical notes currently.

- B) To serve developers by building custom applications (e.g. web Q&A, information chatbots) which can be powered by Azure functionalities and OpenAI models to address organisation/user-specific needs:
 - The foundational building blocks such as prompt engineering library and templates assist healthcare partners to accelerate healthcare Generative AI development;
 - It will have the ability to connect from other systems through Application Programming Interfaces (APIs) to promote knowledge cross sharing and Generative AI applications interoperability to improve clinical and operational insights.



Annex B

IHiS-Microsoft Generative AI Micro-Conference

| Time | Programme |
|-------------|---|
| 11:30am | Registration and Lunch |
| 12:35pm | Emcee introduces the event |
| 12:37pm | Welcome address by Ngiam Siew Ying, IHiS CEO |
| 12:40pm | Welcome address by Lee Hui Li, Microsoft Country MD |
| 12:43pm | Speech by GOH, Dr. Janil Puthuchery, Senior Minister of State (SMS) for Communications and Information & Health |
| 12:48pm | MOU Signing and Photo Opportunity |
| 12:55pm | Overview of MVP for "Secure GPT for Healthcare Professionals" (IHiS and Microsoft) |
| 1:00pm | Presentations by IHiS and Microsoft <ul style="list-style-type: none">• Here Comes AI: The New Era of Intelligence in Healthcare• Technical Sharing by IHiS DNA: Strategies, Python Libraries, Tips & Tricks to Improve ChatGPT Development• How Azure OpenAI is Transforming Healthcare• Innovation Collaboration with Industry Partners |
| 2:10pm | Q&A |
| 2:20pm | Tea Break and Networking |
| 2:40pm | Sharing by IHiS, Microsoft and Partners (MOH, MOHT, Avanade and Epic) <ul style="list-style-type: none">• Key considerations to deploy and scale OpenAI• Healthcare Partner Sharing: Delivering Safe and Responsible AI• Healthcare Partner Sharing: MOHT perspective on Generative AI directions and Foundation Models in Healthcare• Industry Partner Sharing: Avanade and Azure OpenAI, The Next Wave of Computing• Industry Partner Sharing: Integration and Potential Applications of Generative AI in Epic Offerings to support industrial partnerships |
| 4:15pm | Q&A |
| 4:25pm | Closing |



Annex C

Profile of First Speaker: Cumarran Kaliyaperumal, Chief Data & Analytics Officer, Microsoft APAC



Cumarran is the CDAO for Asia overseeing strategic data driven transformations for key Microsoft clients.

Prior to joining Microsoft, Cumarran was leading the Travel and Finance Data Analytics business in Southeast Asia. He was responsible for growing sales in the region and was the key touchpoint for his clients during the pandemic where he implemented digital technologies to help them thrive in the new normal. He authored Google's flagship 'economy' report in 2021.

Cumarran was in McKinsey & Company before Google where he helped clients globally on their multi-year enterprise-wide data transformation focusing on data strategy, use case delivery and monetisation of data assets.

He was seconded to QuantumBlack in London, McKinsey's CoE for Data and AI, and helped them set-up their first office in Asia (Singapore) in 2019.

As a Singapore Armed Forces scholar, Cumarran served eight years as a Combat Drone Pilot where he led multi-national military exercises globally. He was also the Private Military Aide to the President of Singapore and Foreign Military Secretary to the Minister for Defence and the Chief of Air Force.

Topic and Synopsis:

Here Comes AI: The New Era of Intelligence in Healthcare

What if you could access the power of artificial intelligence (AI) without extensive coding or technical skills? What if you could use natural language to interact with data, create content, automate tasks, and more? That's the promise of Azure OpenAI Service, a cloud-based service that lets you tap into the world's most advanced AI models.

We will explore the capabilities of GPT-4 in context to medical domain.

This session explores how Azure OpenAI Service is revolutionising the way we work by making AI accessible and easy to use for everyone. Whether you are an executive, a clinician, a researcher, or a developer, you can benefit from the power of Azure OpenAI



Service. You can save time, improve productivity, enhance creativity, and unlock new possibilities.

Profile of Second Speakers:

IHiS' DNA Team [From left: Alvin Yuen (Senior Specialist) / Andy Ta (Director of Data Analytics & Ai and Chief Data Officer) / Somasekhar Akiri (Senior Specialist) / Dr. Goh Han Leong (Senior Principal Specialist) / Choong Zi Chao (Lead Specialist)]



Since 2010s, the **Data Analytics & Ai (DNA)** team has been supporting IHIS' healthcare stakeholders in solving business problems using advanced analytical capabilities. We deploy scalable data pipelines and predictive models, leveraging big data and AI to transform public healthcare nationwide.

Topic and Synopsis:

Source Code, Python Libraries and Tip/Tricks to Improve ChatGPT Development

The sharing will cover insights on how the IHIS DNA team is leveraging data analytics and AI to solve the current healthcare challenges in Singapore, and their learning points and tips in their experimentation of leveraging large language models - to develop specific generative AI use cases such as organisational chatbot and clinical decision support tool to improve productivity and enhance patient care.

Profile of Third Speaker: Jason Boon, Data AI Specialist and AI Advocate, Microsoft Singapore



Jason leads Data and AI conversation in public healthcare, education and defence in Singapore. Jason is a passionate advocate for the advancement and integration of artificial intelligence (AI) into the last mile problem, committed to raising awareness about the potential benefits of AI technology and promoting its responsible adoption to drive innovation and improve overall efficiency.

Jason brings over 15 years of expertise as a specialist and as centre of excellence in AI and Analytics, having worked with industry giants such as IBM, SAP, SAS, and also delving into technology research at IDC.

Topic and Synopsis:
How Azure Open AI Service is transforming healthcare

Artificial intelligence (AI) is changing the way we work in every industry, especially in healthcare. We are excited to share how GPT-4, the latest natural language generation technology from OpenAI, can help healthcare professionals and researchers achieve more. GPT-4 is a powerful tool that can generate high-quality text from any input, such as medical records, research papers, or patient queries. It can also understand and respond to natural language questions, making it easier to access and analyze information.

With Microsoft and our industry partners, we are leveraging GPT-4 to create innovative solutions for healthcare challenges, such as improving diagnosis, enhancing patient care, and accelerating research. Join us to learn more about how GPT-4 is transforming healthcare.

Profile of Fourth Speaker:
Vicky Tang, Industry Partnership Lead, Innovation Capabilities Enablement (ICE), IHIS





Heading the industry partnership team, Vicky spearheads strategic collaboration and drives new digital innovation initiatives forward. She has successfully led numerous projects aimed at enhancing the patient and provider experience and is an ardent champion of HealthTech who actively promotes the integration of AI tools with healthcare delivery to improve diagnostic capabilities and workflows. Vicky has also been in the ICT/Technology industry for more than a decade and prior to joining IHiS, she has worked with Asia's leading telecommunications giant Singtel and multinational conglomerate Fujifilm.

Topic and Synopsis:
Innovation Collaboration with Industry Partners

The Innovation Capabilities Enablement (ICE) team will share about IHiS innovation branding known as HealthX, as well as key innovation enablers for collaboration with industry partners.\

Profile of Fifth Speaker:
Pek Zhi Xuan, Customer Success AI Lead, Microsoft APAC



Zhi Xuan serves as the APAC AI Pillar Lead at Microsoft, empowering businesses in the region to develop, operationalise, and derive value from their AI projects. With an extensive experience in the AI field since the early days of Machine Learning (ML), he is a firm believer that Generative AI (GenAI) has the potential to amplify the work productivity for businesses and actively endorses exploring new digital frontiers with AI. Zhi Xuan also holds a Master of Science in Business Analytics from Imperial College London, specialising in Advanced ML and database management.

Topic and Synopsis:
Key considerations to deploy and scale Azure Open AI Service

Join us to learn how to deploy Azure Open AI Service responsibly in your organisation. Learn from our experts the key considerations and best practices for ensuring ethical, secure, and scalable AI solutions. Whether you are new to Azure Open AI Service or already using it, this session will help you gain insights and tips on how to leverage its full potential while minimising risks and challenges.

Profile of Sixth Speaker:
Sutowo Wong, Director Data Analytics Division, Infocomm, Technology & Data Group (ITDG), Ministry of Health (MOH)



In supporting MOH's priorities in policy formulation, service planning, and operations, Sutowo spearheads a diverse team of experts including data scientists, statisticians and health economists in utilising various advanced techniques such as AI, ML, operations research, systems modelling and econometrics. He oversees the development of ecosystem enablers for impactful AI solutions in healthcare data, and is responsible for capability development, publication, partnership and outreach. Prior to joining MOH, Sutowo also held analytics leadership positions and worked with organisations in sectors such as public service, healthcare, pharmaceuticals and telco across Asia.

**Topic and Synopsis:
Delivering Safe and Responsible AI**

As adoption of AI increases, the question of AI governance becomes increasingly important, there must be a structured way to identify potential harm and risks, and build safeguards (to mitigate/avoid/limit) to meet the goal of safe delivery of services/products through AI.

Following the publication of AI in Healthcare Guidelines (AIHGle), MOH is developing AI Governance Framework (AIGovF), which is based on the guiding principles of AIHGle, to promote safe and responsible use of AI.

The speaker will share how AIGovF applies a risk-based approach to allow developers, researchers and implementors to identify risks and create controls to mitigate risks throughout the AI development and deployment lifecycle.

**Profile of Seventh Speaker:
Dr. Robert Morris, Chief Technology Strategist, MOH Office for Healthcare Transformation (MOHT)**





Dr. Morris anchors MOHT's Data and Technology Enablers and is a Professor at the National University of Singapore (NUS) Yong Loo Lin School of Medicine. He also serves as an Advisor to the National Research Foundation in the Prime Minister's Office. Currently, his focus is on utilising computer and information sciences, including AI, to revolutionise healthcare. Earlier in his career, Dr. Morris led IBM Research's Global Laboratories and the TJ Watson Center (New York)'s advanced systems research. His notable achievements include being involved in the creation of Services Science, research for IBM's ThinkPad, and Storage Systems as well as the Deep Blue chess machine which defeated world champion Garry Kasparov in 1997.

Topic and Synopsis:

MOHT perspective on Generative AI directions and Foundation Models in Healthcare

MOHT would like to suggest a framework where we focus on the full potential of Foundation Models for Health. The goal would be a holistic combination of population longitudinal records, current patient condition (largely structured data) combined with recommendations based on the literature, best practices and guidelines, as well as prior history of the patient (largely unstructured data). Settings will include clinical decision support, direct patient interactions, triads, and public health and policy analysis. We will illustrate with rudimentary tools that predict current patient risk factors followed by recommended actions.

Profile of Eighth Speaker:

Priyanka Shah, Head of Artificial Intelligence / Internet of Things (AI/IoT), Avanade, SEA



Priyanka drives AI/IoT business growth in the SEA region, leveraging her technology expertise to address business problems through AI/ML solutions. With over ten years of experience in the field, she has successfully applied AI to diverse areas like knowledge mining, sustainability, hyper-personalisation, and intelligent decision support systems, for government, business, and retail clients. Priyanka is also a respected tech blogger known for spurring insightful conversations on topics relating to AI and ML. She has served as a speaker for NDC Conferences in Sydney and lectured on topics like digital twin and smart factories at NUS Business School.

Topic and Synopsis:

Avanade and Azure OpenAI, the next wave of computing

Avanade has one of the earliest large implementations of Azure OpenAI in the region. Delve into the world of OpenAI as we discuss its impact on the last mile problem, the new opportunities it presents, and most importantly, our real-world experience collaborating with customers on this innovative technology.

Profile of Ninth Speaker:
Carissa Kathuria, Software Developer, Epic



Carissa's passion lies in reshaping the future of global healthcare. Through her expertise in emerging and foundational technologies like ML, she inspires to improve care and make a significant impact on the lives of millions of patients around the world. Carissa was also formerly a member on a Google Cloud Platform team, where she enhanced the SystemVerilog Style Linter and restructured the systax tree to increase consistency. Earlier, she was part of Amazon's Deep Engine Machine Learning team pre-launch, where she developed a performance benchmarking tool for an innovative service that incorporated Docker, MXNet, C++, and Python.

Topic and Synopsis:
Integration and Potential Applications of Generative AI in Epic

In this presentation, Epic will discuss its thoughtful approach to integrating Generative AI within the EHR and showcase various use cases that demonstrate its potential applications.



Annex D

About Integrated Health Information Systems (IHIS)

IHiS is a leading healthcare technology firm that integrates resilient, intelligent, secure, and cost-effective technology with people and processes to make healthcare more efficient, more inclusive, more accessible, and safer for patients.

IHiS supports more than 80,000 healthcare users in Singapore's public healthcare sector to bring about healthcare transformation through the use of technology. We harness multiple healthtech domains – health AI, telemedicine, electronic health records, digital health applications, and more, to push the boundaries of transformative health to improve population health, make healthcare more sustainable, and enhance the patient experience.

For more information, visit us at www.ihis.com.sg, or connect with us on [Facebook](#) and follow us on [LinkedIn](#) to learn more about the latest healthcare IT news.