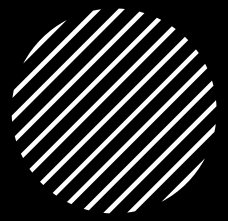
AI for Dummies

Building AI-powered apps without the data science degree

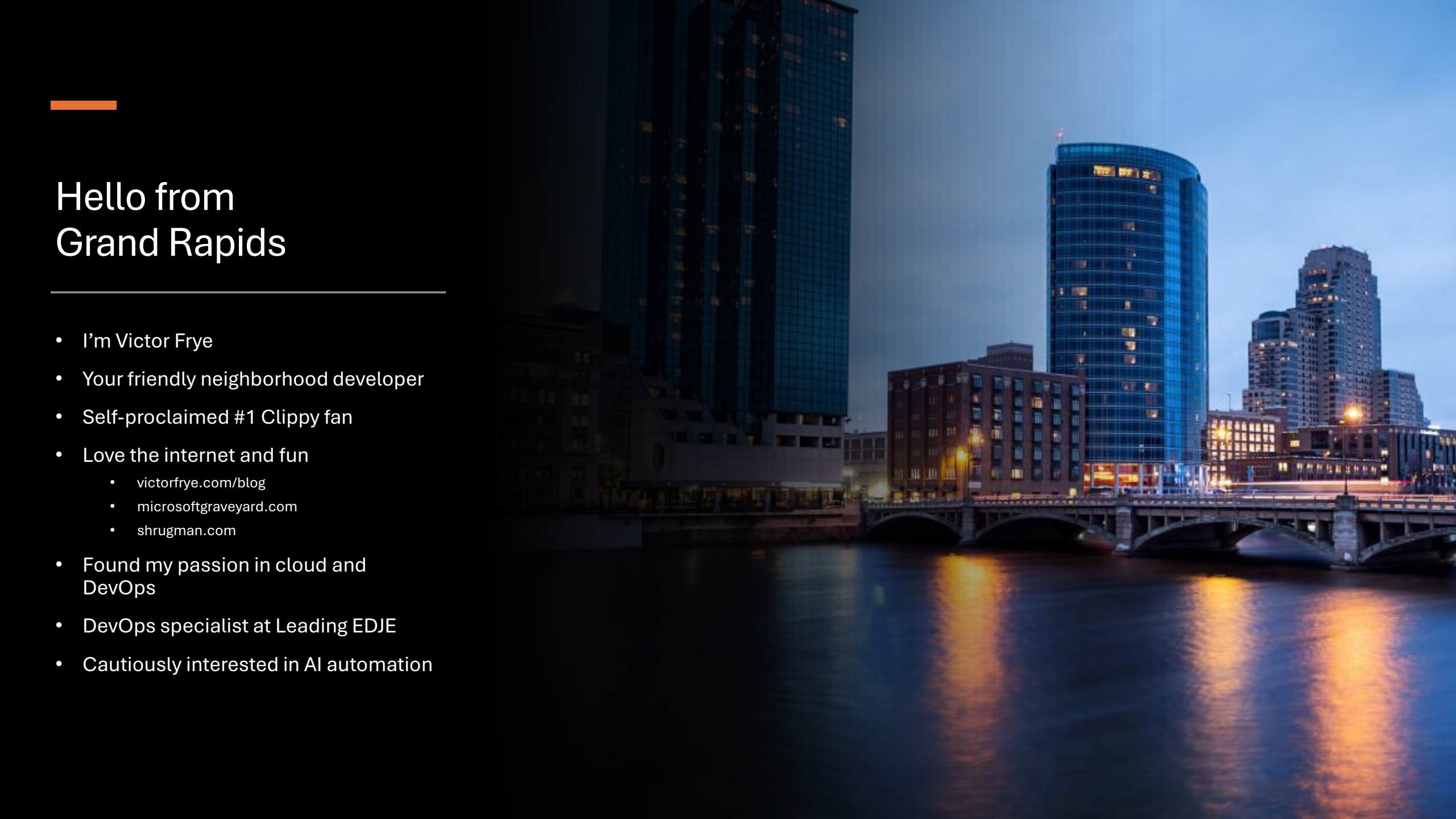
Agenda



- Introduction
- AI Overview
- Using AIaaS
- Demo application
- Questions

Hello from Grand Rapids

- I’m Victor Frye
- Your friendly neighborhood developer
- Self-proclaimed #1 Clippy fan
- Love the internet and fun
  - victorfrye.com/blog
  - microsoftgraveyard.com
  - shrugman.com
- Found my passion in cloud and DevOps
- DevOps specialist at Leading EDJE
- Cautiously interested in AI automation



Leading EDJE

- Technology consultancy and services
  - Strategists, innovators, partners
  - Craft bespoke solutions
  - Positive disruption of the norm
  - Outcome focused
- Real. Fun. Geeks.
- Free lunch and learns
- Expert talent
  - Cloud
  - DevOps
  - Web
  - Agile
  - AI

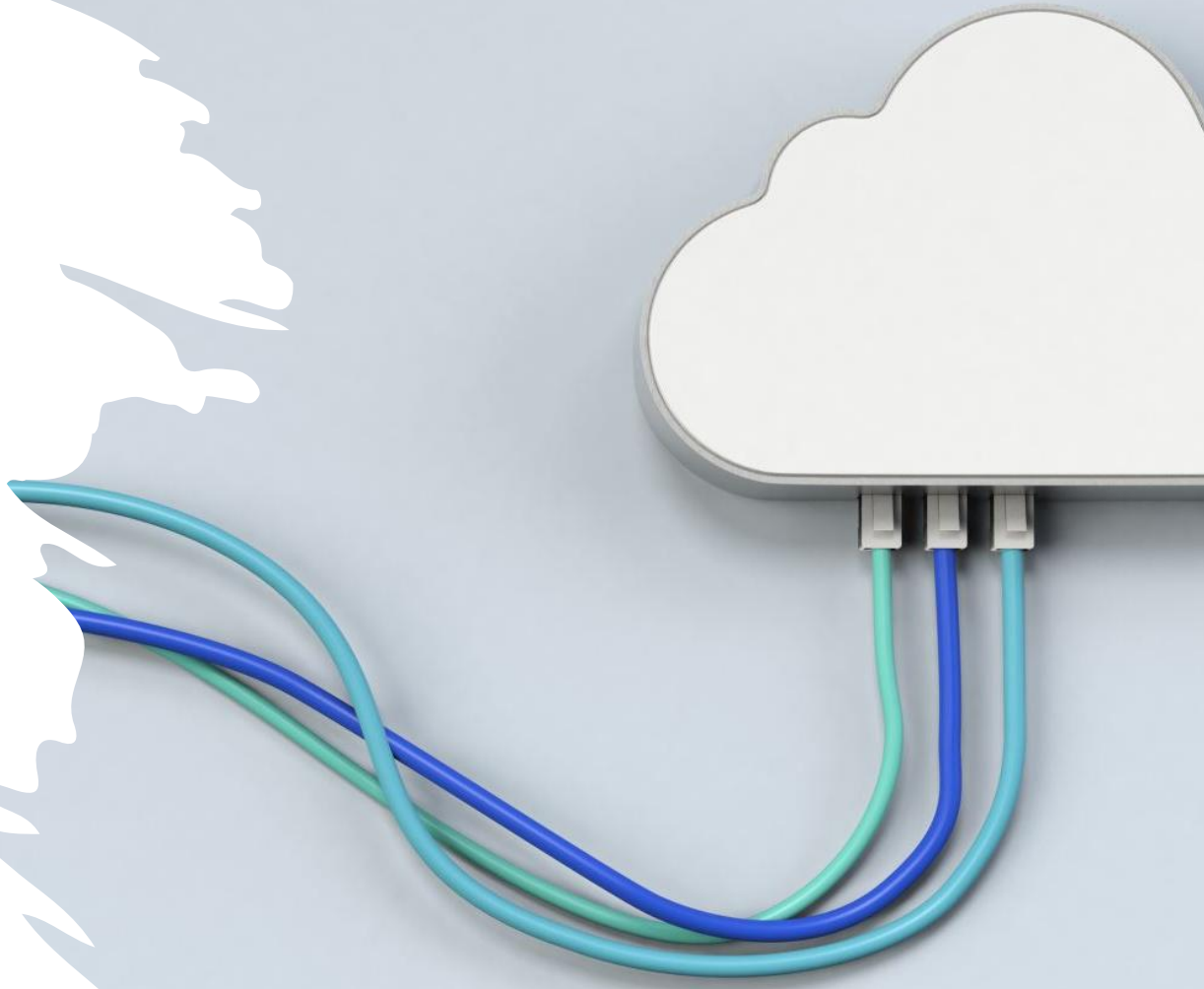
AI is mainstream now

AI goes deeper than ChatGPT

- Agents
- Copilots
- AI as a Service
- Deep Learning
- Machine Learning

AI as a Service

- Follows cloud service model (i.e., IaaS, PaaS, SaaS)
- Developers interact through APIs
  - RESTful endpoints
  - SDKs
- Cloud platform manages infrastructure for you
- Choose a cloud provider (e.g., Azure)



Types of AIaaS

Bots

Chatbots

Virtual assistants

Social media bots

Conversational agents

Machine learning frameworks

Predictive modeling

Image recognition

Natural language

Recommendation systems

Cognitive computing APIs

Image recognition

Speech synthesis

Language translation

Sentiment analysis

Data analytics and insights

Predictive analytics

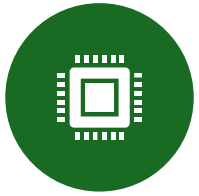
Anomaly detection

Pattern recognition

Recommendation engines

Benefits of AIaaS

COST-EFFECTIVE IMPLEMENTATION



ACCESS TO CUTTING-EDGE

RAPID DEVELOPMENT AND DEPLOYMENT

SCALABILITY AND STABILITY

FOCUS ON CORE COMPETENCIES

INNOVATE AND EXPERIMENT

Cognitive Computing

Computer vision

- Image classification
- Facial recognition
- Optical character recognition (OCR)

Natural language processing

- Sentiment analysis
- Machine translation
- Speech synthesis

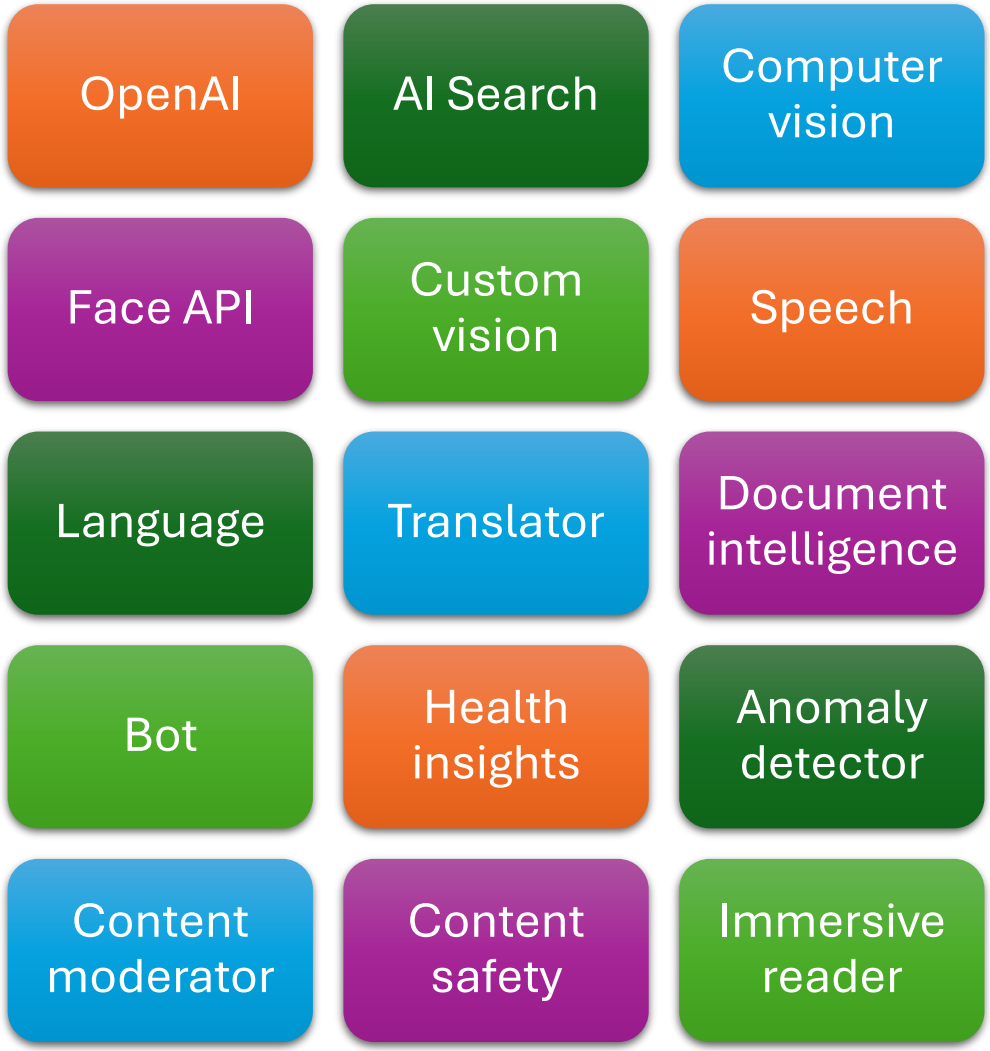
Document intelligence

Knowledge mining

Generative AI

- Content generation

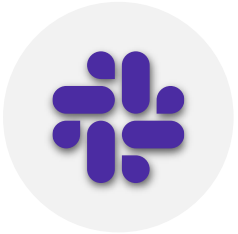
Azure AI Services



Building with AIaaS

App idea

EDJEOVATION DAYS



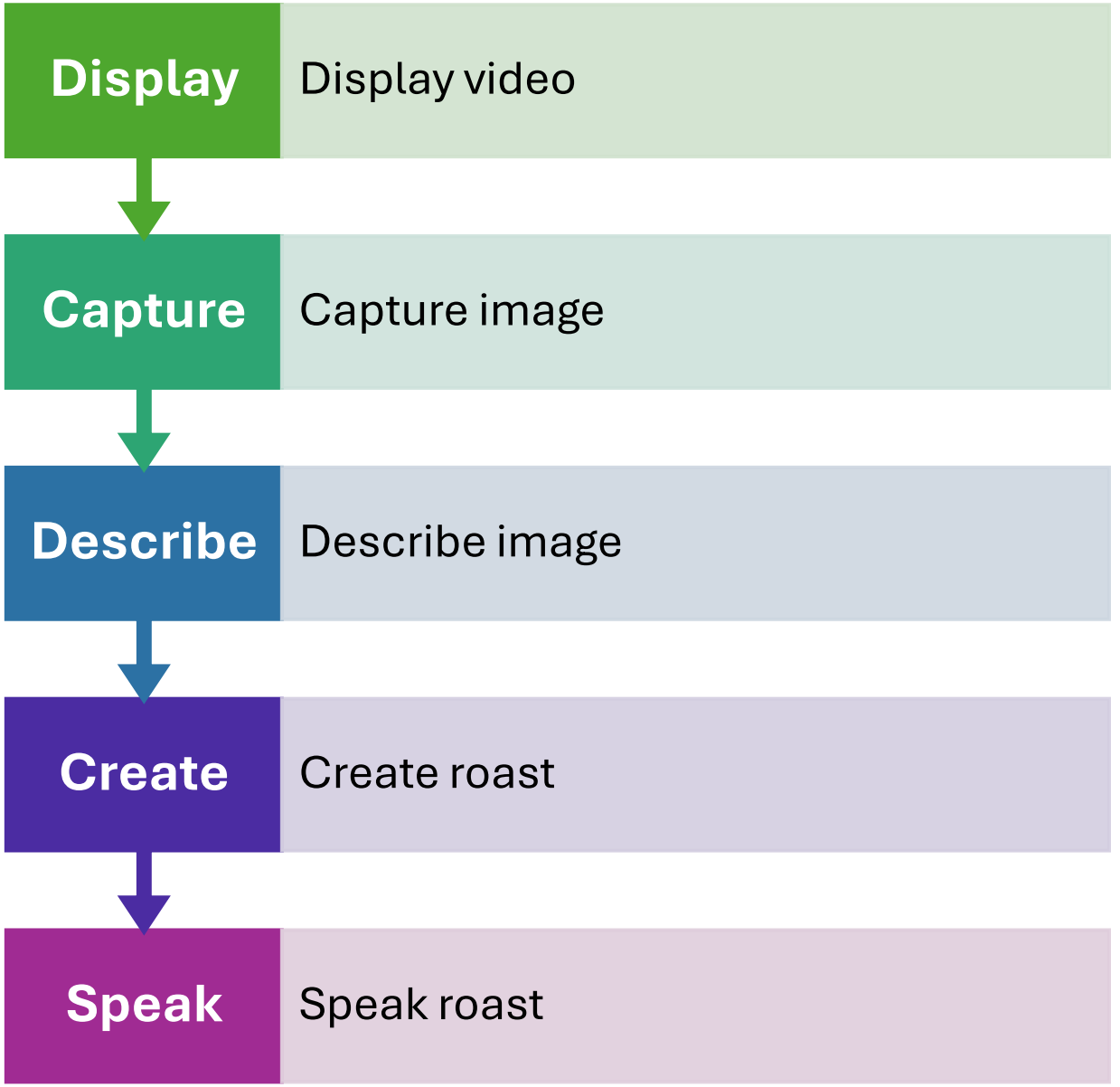
SLACK HUDDLE “YOU LOOK GREAT TODAY”

MIRROR MIRROR, ON THE WALL...

/R/ROASTME

MOCK COWORKERS

Our app requirements



The AI elements

1

Describe Image

- *Input*: captured image
- *Output*: image description

- See details of image
- Use computer vision OR multimodal LLMs

2

Create roast

- *Input*: image description
- *Output*: roast text

- Generate new text content
- Use LLM

Speak roast

- *Input*: roast text
- *Output*: roast audio

- Convert text to speech
- Use speech synthesis

Azure AI Services we will use

Azure OpenAI

Azure AI Speech

The Mocking Mirror

The Azure AI Vision problem

Demonstration

Chat in AI Foundry

Demonstration

Ethical AI and content filters

Demonstration

aspire run

Demonstration

Get roast completion

Demonstration

Explore Speech Studio voices

Demonstration

Get roast speech

Demonstration

Trials along the way

- Content filters
- Region limits
- Face blurring
- Platform requirements
- Multimodal limitations
- Cost management

Be Responsible

Fairness	AI systems should treat all people fairly
Reliability and safety	AI systems should perform reliably and safely
Privacy and security	AI systems should be secure and respect privacy
Inclusiveness	AI systems should empower everyone and engage people
Transparency	AI systems should be understandable
Accountability	People should be accountable for AI systems

Is this even applicable?

- Self checkout app that greets you and provides a compliment
- Fashion app that comments on outfit with fashion tips

Innovate & experiment

Start developing with AlaaS and find out

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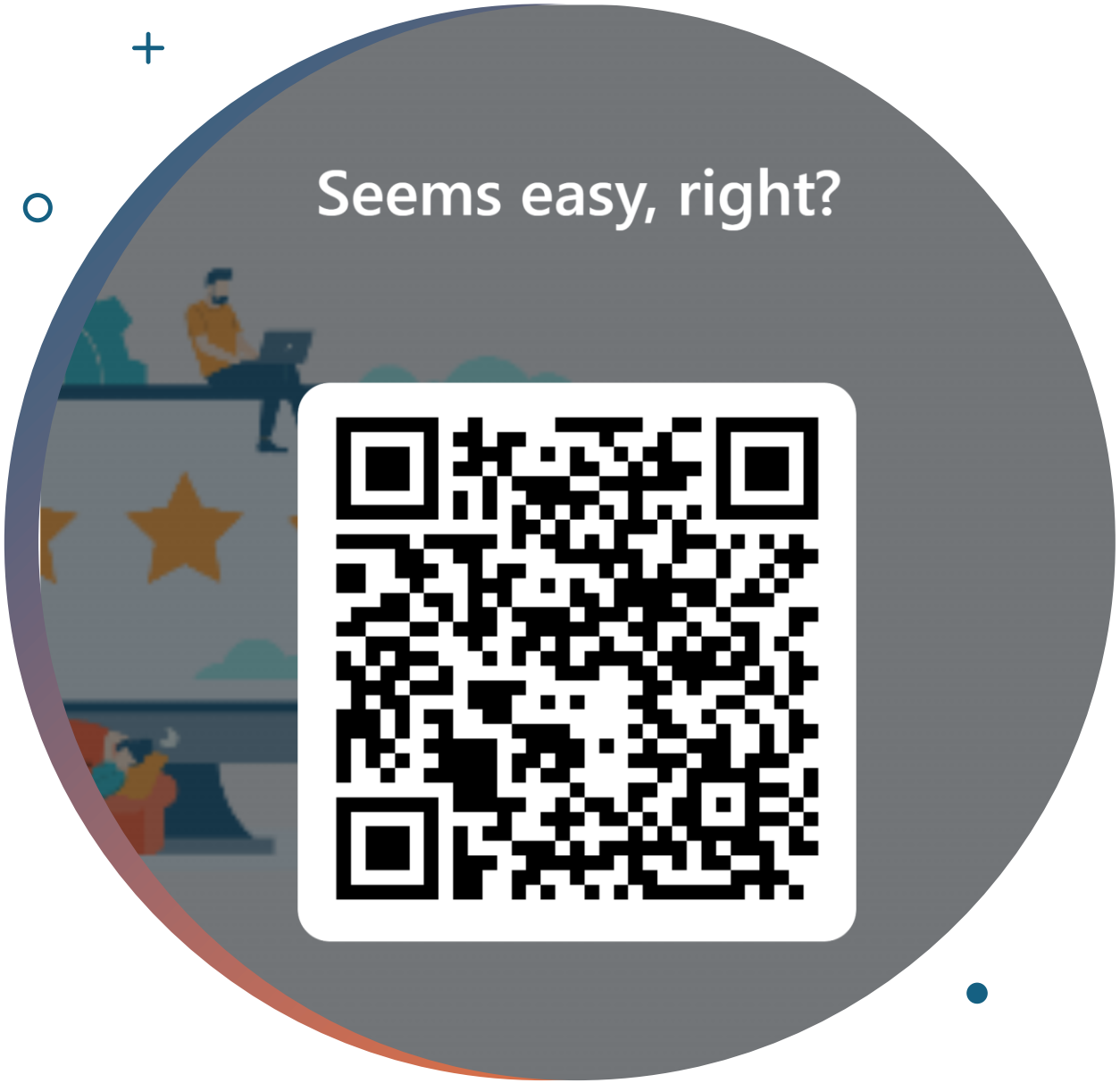
InstructLab

Progress

umbraco



Thank you

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