# Cristopher **Benge**

#### Senior Director 🤝 Data Scientist

Security clearance: Top Secret/SCI with Polygraph

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#### EDUCATION \_\_\_\_

#### Columbia University in the City of New York

MASTER OF SCIENCE, COMPUTER SCIENCE (MACHINE LEARNING)

Exp. 2023

New York, New York

University of California, Berkeley

Berkeley, California

Master of Information and Data Science

May 2021

Indiana Wesleyan University

Marion, Indiana

Bachelor of Science, Business Information Systems

Apr. 2012

Associate of Science, Business

Apr. 2006

#### SKILLS \_\_\_

Programming Python, R, C#, JavaScript, PowerShell, LaTeX, Markdown

Machine Learning PyTorch, Keras/TensorFlow, LightGBM, XGBoost, Catboost, scikit, Azure ML, Spark MLlib

Data Platforms SQL Server, Analysis Services, Azure Synapse Analytics, Cosmos DB, Azure Data Lake, S3, Redshift

Data Visualization Power BI, Tableau, Plotly, ggplot, Seaborn, Matplotlib, Bokeh, Altair, D3.js

Cloud Platforms Microsoft Azure, Amazon AWS, Google GCP

Miscellaneous Research Design, Data Engineering, Data Warehousing, Statistics, Communication, Leadership

#### EXPERIENCE\_

Microsoft Indianapolis, Indiana

SENIOR DIRECTOR, DATA SCIENCE (AZURE CLOUD + AI)

Oct. 2020 - PRESENT

- Manage five geodiverse data science and software development teams for Azure Cloud + AI, focused on developing and improving quality
  of analytics, machine learning, automation, custom tools, and data-driven solutions for the worldwide hardware engineering organization.
- Provide leadership and support to our U.S. sovereign cloud offerings for the U.S. defense and intelligence communities.
- Design of experiments, regression analysis, machine learning, data-product solution architecture, and storytelling with data to executive leadership to give insights and provide decision support to the business leadership.
- Lead special projects across the organization to deliver on the creation of new data capabilities and analytic products within the worldwide hardware engineering organization.
- · Identify, recruit, professionally develop, mentor, and retain talented data professionals for the Azure Cloud + AI organization.

### University of California, Berkeley

Berkeley, California

Graduate Teaching Assistant (Machine Learning Systems Engineering)

Jan. 2022 - May 2022

· Serve as teaching assistant for the MIDS Spring 2022 semester, DATASCI W255: Machine Learning Systems Engineering.

Microsoft Indianapolis, Indiana

SENIOR AREA SOLUTION ARCHITECT (OFFICE OF THE U.S. HEALTHCARE CTO)

Jan. 2019 - Oct. 2020

- Provided solution architecture and technical consultation on data science, machine learning, and business intelligence for Microsoft Healthcare customers in the U.S. commercial and federal civilian sectors.
- Guided customers on their digital transformation both in the cloud and into machine learning on the Azure platform.
- Served as an AI ambassador within Microsoft, educating our business leaders and sales executives on modern data science technologies and solutions.
- Qualification, technical deal shaping, demonstrating business value, early-stage architecting, and building speculative solutions using emerging technologies.

#### **United States Senate**

Washington, District of Columbia

Principal Systems Engineer (Office of the Sergeant at Arms and Doorkeeper)

Aug. 2015 - Jan. 2019

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- Served as team lead for the SQL Server solutions area of the Enterprise Data Services section, responsible for all data and analytic needs of the U.S. Senate offices, committees, and applications.
- Created POC's and led the implementation of mission-critical architecture changes to ensure fully automated [geographic] disaster recovery, continuity of operations, and performance monitoring of all data assets.
- Led the research and development of experimental machine learning initiatives, particularly in the areas of IT operation predictive maintenance and automation of tasks.
- Implemented geographically-scaled analytics platforms to all U.S. Senate offices and provided consultation on development, design, security, and performance needs.

SENIOR PREMIER FIELD ENGINEER (DEFENSE INDUSTRY, EMEA)

Aug. 2014 - Jul. 2015

- Provided engineering in the field for Microsoft SQL product team in support of the U.S. Army unified combatant commands in Germany and Kuwait
- Developed enterprise data warehousing and reporting solutions built to facilitate management of command telecommunications for all directorates.

Microsoft U.S. Various (Travel)

SENIOR CONSULTANT II (CONSULTING SERVICES, U.S. COMMERCIAL & PUBLIC SECTOR)

Aug. 2005 - Jul. 2014

 Provided consultation on database design, data warehousing, business intelligence, and data platforms architecture to U.S. commercial customers of Microsoft. The primary customer profile with commercial sector was Healthcare-focused, typically in the pharmaceutical or payor vertical.

Alcoa Indianapolis, Indiana

Data Warehouse Developer (1099 Contract)

Jun. 2001 - Aug. 2007

Powerway.com Indianapolis, Indiana

Database Architect

2000 - 2001

American Health Network Indianapolis, Indiana

Database Developer 1999 - 2001

Anthem Blue Cross Blue Shield Indianapolis, Indiana

Systems Administrator 1996 - 1999

# HONORS & AWARDS \_\_

#### Competition

2019	<b>1st Place,</b> Identifying World Bank Publication Topics (NLP, multi-label, multi-class, multi-language)	DrivenData
2018	Top 12%, Data Science Bowl - Find the Nuclei in Divergent Images (Vision, instance segmentation)	Kaggle
2017	13th Place, Predict Futures Sales for the 1C Company (Regression, time-series)	Kaggle
2017	1st Place, Department of Education - Predicting College Graduate Earnings (Regression)	DrivenData

#### EMPLOYER

2020	Circle of Excellence: Platinum Club, Microsoft's highest annual employee award for performance	Microsoft
2020	Champion Award (Q3), Microft's highest quarterly employee award for performance	Microsoft
2020	Hero Award, Microsoft's highest monthly employee award for performance	Microsoft
2019	#BetterTogether Award, Recognition for leading a diverse, high-performing v-team	Microsoft

## CERTIFICATIONS & CREDENTIALS \_\_\_

Amazon AWS Certified Solution Architect (AS)

Microsoft

Certified: Azure Data Scientist, Certified Azure Solution Architect (Expert), MPP: Data Science, MPP: Artificial Intelligence,
Certified Solutions Master: SQL Server (MCSM), Certified Master: SQL Server (MCM), more (see LinkedIn)

# PUBLICATIONS \_\_\_\_\_

#### A High-Performance Compression Approach for Transformer-Based NLP Tasks

Unpublished

Graduate Research

May 2021

• Paper can be viewed here on my public portfolio.

#### BERTVision: A Parameter-Efficient Approach for Question Answering

ArXiV

Graduate Research

Feb 2022

• Paper can be viewed here on ArXiV.

#### Ticket-BERT: Labeling Incident Management Tickets with Language Models

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Professional Research

Microsoft Journal of Applied Research

May 2021

• Paper can be viewed here on my public portfolio.

# STIM: Predicting Memory Uncorrectable Errors with Spatio-Temporal Transformer

Microsoft Journal of Applied Research
Oct 2023

Professional Research

• Paper can be viewed here on my public portfolio.