

# Chris Umbel

## Chris Umbel

*Implementing AI-driven automation and instrumentation to harden operations and incident response*

Pittsburgh, Pennsylvania, United States

[chris@chrisumbel.com](mailto:chris@chrisumbel.com)

Technology leader with more than 25 years of experience driving innovation, operational excellence, and business outcomes across software, infrastructure, cybersecurity, and cloud platforms. My current focus is the convergence of cybersecurity and artificial intelligence, where I apply a broad technical foundation and leadership experience to solve complex problems, manage risk, and enable organizations to adopt emerging technologies with confidence.

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## Experience

### AI SRE Lead / Sr. Principal Site Reliability Engineer

*Zscaler*

May 2025 - Present

Led the strategy, implementation, and ongoing operation of an enterprise agentic SRE platform with our trusted partner, Resolve.ai. Owned the roadmap for AI-driven operational incident management, including the development of MCP-based integrations as well as agents that provided critical operational context and accelerated automated investigation and response.

### Chief Information Officer / Chief Information Security Officer

*Ravana, LLC*

Apr 2022 - May 2025

As CIO and CISO, led enterprise technology and security strategy across infrastructure, operations, data platforms, and business applications. Held executive responsibility for managing and resolving high-impact cybersecurity

incidents, while defining and executing technology roadmaps that modernized core systems, improved operational effectiveness, and enabled scalable business outcomes.

## **Modern Apps and Infrastructure Lead**

*Ravana, LLC*

Apr 2021 - Apr 2022

Led the architecture, implementation, and ongoing operation of enterprise Kubernetes infrastructure and CI/CD pipelines. Drove platform reliability, automation, and scalability by implementing modern DevOps practices that accelerated software delivery while maintaining security and operational excellence.

## **Product Manager**

*VMware*

Jan 2021 - May 2021

Served as Product Manager for tooling that enabled application modernization and migration from legacy environments to modern cloud platforms, with a focus on J2EE, Spring and .NET sources.

## **.NET App Transformation Journey Lead**

*VMware*

Dec 2019 - Jan 2021

Led the .NET Modernization Practice, helping organizations migrate legacy .NET applications to modern cloud platforms. Directed replatforming initiatives targeting Kubernetes and Cloud Foundry to improve scalability, reliability, and deployment agility.

## **.NET App Transformation Practice Lead**

*Pivotal Software, Inc.*

Sep 2018 - Jan 2021

Led the .NET Modernization Practice, helping organizations migrate legacy .NET applications to modern cloud platforms like Cloud Foundry.

## **Solutions Architect**

*Pivotal Software, Inc.*

Apr 2015 - Sep 2018

Partnered with customers to deploy Cloud Foundry and modernize legacy Java and .NET applications, enabling successful migration to a cloud-native platform.

## **Skunkworks Software Developer**

*Ravana, LLC*

Jun 2010 - Mar 2015

Incubated R&D projects and tools used in our video encoding and delivery business using primarily open source technologies.

## **Database Administrator**

*Ravana, LLC*

Mar 2007 - Jul 2010

Managed the organization's SQL Server infrastructure, including database administration, database development, business intelligence solutions, and performance optimization with a specialty in indexing and query tuning.

## **Senior Programmer**

*Unicentric*

Sep 1999 - Mar 2007

Developed the data platform for the Unicentric "servicexpert" suite, creating an extensible and dynamic architecture that supported customer-specific data models and workflows without requiring separate database schemas.

## **Software Developer**

*Indianer Computer Corporation*

1999 - 2002

Full stack developer focussed in Microsoft technologies.

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## **Education**

### **Penn State University - Master's degree - Artificial Intelligence**

Aug 2024 - Aug 2026

Graduate program focused on the practical application of artificial intelligence, deep learning, reinforcement learning, machine vision, natural language processing, and data analytics to solve complex business and technical problems. Coursework emphasizes both the mathematical foundations of AI and the design,

development, evaluation, and deployment of AI solutions in real-world environments.

## **Penn State University - Bachelor of Science - Cybersecurity**

Aug 2017 - Dec 2023

Interdisciplinary program combining cybersecurity, risk management, analytics, programming, and cyber defense to prepare graduates to identify, analyze, and mitigate modern information security threats. Coursework emphasized incident response, network security, malware analysis, digital forensics, security operations, and the application of technical and analytical methods to protect complex enterprise systems and data.

## **University of North Dakota**

Apr 2024 - Jun 2024

Filling in some mathematical gaps before Master's

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## **Certifications**

### **Trusted AI Safety Expert (TAISE) Certificate**

*Cloud Security Alliance*

Issued Jun 2026

### **XACSI34 - AI Security**

*Stanford Online*

Issued Jun 2026

### **Certificate of Cloud Security Knowledge v.5 (CCSK)**

*Cloud Security Alliance*

Issued May 2026

### **Certificate of Competence in Zero Trust (CCZT)**

*Cloud Security Alliance*

Issued May 2026

### **CompTIA SecAI+ Certification**

*CompTIA*

May 2026 - May 2029

### **Natural Language Processing (Graduate Certificate)**

*Penn State Great Valley*

Issued Jan 2026

## Microsoft Certified: Azure AI Fundamentals

*Microsoft*

Jul 2024 - Jul 2027 · License C13B9D3B40F4E544

## CompTIA Security+ Certification

*CompTIA*

Apr 2024 - Apr 2027

## Cisco Certified Network Associate

*Cisco*

Mar 2024 - Mar 2027 · License CSC014551066

## National Security Agency - IST

*Penn State University*

Issued Dec 2023

## Security and Risk Analysis Undergraduate Certificate

*Penn State University*

Issued Jan 2020

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## Patents

### Grouping software applications based on technical facets

US 11,947,957 B2 · Issued Apr 2, 2024

### Electronic charting system

US 7,849,400 B2 · Issued Dec 7, 2010

### Method and apparatus to retrieve information from a network

US 6,584,468 B1 · Issued Jun 24, 2003

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## Skills

Machine Learning

Transformer Models

Large Language Models (LLM)

Generative AI

Presentation Skills

Software Architectural Design

EF Core  
ASPNET Core  
Entity Framework  
.NET Core  
Cassandra  
ANSI C  
Active Directory  
CrowdStrike Falcon  
Ruby  
Splunk  
Data Visualization  
Statistics  
Application Security  
Offensive Security  
Computer Forensics  
Network Security  
Windows Security  
ZTNA  
Wazuh  
Redis  
FreeBSD  
LangChain  
Fortinet  
AWS  
GCP  
Transact-SQL (T-SQL)  
TensorFlow

C  
Site Reliability Engineering  
Multi-agent Systems  
Cryptography  
SSRS  
SSIS  
VMware  
Product Management  
Pivotal Cloud Foundry (PCF)  
Cloud Foundry  
Spring Boot  
Public Speaking  
DevOps  
Helm  
CI/CD  
Nodejs  
Gitlab  
Kubernetes  
Executive Leadership  
Project Management  
Management  
Linear Algebra  
R  
Python  
MATLAB  
Machine Vision  
Networking

Cisco Systems Products  
Natural Language Processing (NLP)  
Cybersecurity  
Cloud Computing  
Security  
Incident Response  
Model Context Protocol (MCP)  
Incident Command  
Microsoft Azure  
Artificial Intelligence (AI)  
Linux  
Ruby on Rails  
Android  
Solr  
iOS  
Business Intelligence  
Microsoft SQL Server  
SQL  
ASPNET MVC  
C#  
ASPNET  
.NET  
JavaScript  
MySQL  
.NET Framework  
Agile Methodologies  
Java