# **Pano Georgiadis**

Cloud Engineer | Multi-Cloud Certified | DevOps, Al & Infrastructure Specialist

#### **Professional Summary**

Dynamic Cloud Engineer and Systems Administrator with deep expertise in cloud-native solutions, DevOps practices, and machine learning applications. Proven success in automating infrastructure, optimizing IT operations, and delivering robust, scalable, Alpowered systems. Adept at troubleshooting complex technical issues, maintaining system reliability, and providing expert support to end-users and IT teams. Passionate about implementing cutting-edge technologies while ensuring security and operational excellence.

#### **Technical Skills**

- Cloud & Virtualization: AWS, GCP, Azure, DigitalOcean, IBM Cloud, VMware, VirtualBox, Hyper-V, Container Orchestration
- Programming & Development: Python, TypeScript, JavaScript, Java, Node.js, Bash, HTML, CSS, SQL, NoSQL
- Development Operations & Monitoring: CI/CD, Docker, Kubernetes, Terraform, Ansible, Jenkins, GitHub Actions, Prometheus, Grafana, ELK Stack, CloudWatch
- Frontend & Frameworks: React, Next.js, TailwindCSS, Sass, Ex-
- press.js, Web Performance Optimization
- Machine Learning & Data Processing: TensorFlow, PyTorch, Neural Networks, Data Pipelines, ETL Processes, Big Data Tools
- Databases & Storage: MySQL, PostgreSQL, MongoDB, AWS RDS, Azure SQL, Database Design
- Systems & Networks: Linux Administration, TCP/IP, DNS, HTTP, VLAN, Subnetting
- Additional Expertise: Documentation, Project Management, Technical Training, Strategy Development, Greek, Mandarin

#### **Education**

## Master of Science in Computer Science

Jan 2024 - Apr 2025

University of Colorado Boulder

**GPA:** 4.0

Focus: Cloud-Native Architecture, Machine Learning, Systems Engineering

Core Competencies: Algorithm Design (Greedy Algorithms, Optimization) | Cloud Architecture (Scalable Systems, Big Data) | Machine Learning (Neural Networks, Ethical AI) | Data Engineering (Pipeline Development) | Systems Design | Database Management | Network Systems | Data Analytics | DevOps Practices | Continuous Integration / Continuous Delivery | Security

#### **Professional Development & Early Education**

# Front End Web Developer Nanodegree - Udacity

Aug 2024 - Nov 2024

- Advanced SPA development with modern frameworks, asynchronous programming patterns, responsive design

## Cloud Engineer IT Professional – Linux Foundation & CNCF

Aug 2023 - Jun 2024

- LF Certified Cloud Technician, CNCF Certified Kubernetes Administrator, Advanced Linux system administration

# Cloud Architecture & IT Support - Visible Edge, Inc.

Mar 2023 - Aug 2023

- CompTIA Trifecta certification, Multi-cloud certification (Azure, AWS), ITIL 4 Framework implementation

# Early Education - Saint John's High School

Graduated with Honors

- NHS Member, AP Mandarin Chinese, Varsity Wrestling Captain, Investment Club, Jazz Band (Guitar)

# **Professional Experience**

## Systems Administrator - Cloud Engineer

Meze LLC, Massachusetts

Mar 2019 - Jan 2025

#### **Key Achievements:**

- Administered Linux systems with cron jobs and scripts for hybrid VoIP infrastructure using a Raspberry Pi
- Deployed and managed Amazon Web Services EC2 instances with SQL/RDS databases for POS and inventory systems
- Configured Ubiquiti switches with custom NAT, VLANs, and subnets for network optimization
- Managed firewall security gateways and WiFi networks with custom landing pages
- Deployed Nginx/Kubernetes containers for website hosting and online ordering systems with 99.9% uptime
- Provided technical support and training for all employees, streamlining IT operations
- Orchestrated migration from on-premise to cloud infrastructure, improving system scalability

# Communications Systems Specialist - IT Support

Army Signal Corps, Greece Ja

Jan 2022 - Dec 2023

#### Key Achievements:

- Fulfilled dual US-Greek military service obligation while managing diverse computer and communication networks for military operations
- Configured RADIUS and TACACS+ servers to enhance network security and access control, and implemented secure communication protocols to support mission-critical operations
- Maintained and upgraded surveillance camera infrastructure to ensure reliability, collaborating with cross-functional teams to improve system performance
- Led technical training for military personnel, fostering skill development and readiness for complex technical challenges

## **Cloud-Based Projects**

#### InvestProphet - Stock Price Prediction Platform

Full-stack microservices application for real-time stock price prediction using LSTM neural networks.

- Infrastructure & Backend: AWS ECS with Fargate orchestration, ECR for container registry, SQS FIFO queues for communication, Route 53 for DNS management, RDS for MySQL database, CloudWatch monitoring, AWS Copilot deployment, Flask web server with SocketIO, LSTM neural network predictions, Alpha Vantage API integration, MySQL with PyMySQL, AWS SDK (boto3) integration, Pandas and NumPy processing.
- Frontend & DevOps: Dynamic Chart.js visualizations, Real-time WebSocket updates, Responsive custom CSS design, jQuery DOM manipulation, Debounced search functionality, Multi-stage Docker builds, Environment secrets management, GitHub Actions CI/CD, Containerized microservices, Comprehensive testing suite, Automated deployment pipeline.

#### **GKE Voting Application**

Multi-tier voting application deployment on Google Kubernetes Engine using ArgoCD.

- Infrastructure & Components: GKE cluster deployment, Redis for real-time collection, PostgreSQL database, .NET worker service, Frontend in Python, Results App in Node.js, Multi-tier architecture.
- **Deployment & Automation:** ArgoCD for continuous delivery and lifecycle management, Google Cloud SDK integration, Kubernetes service configuration, Docker Hub image hosting, Auto-sync deployment, Jenkins pipeline integration, YAML configuration management, Continuous integration workflow.

# Personal Portfolio Website

Modern, responsive portfolio website built with Next.js 15 and hosted on AWS.

- **Infrastructure & Frontend:** Amazon S3 static hosting, CloudFront content delivery, ACM SSL/TLS certification, Next.js 15.0.3 with App Router, React 19.0.0-rc, TailwindCSS styling, TypeScript implementation, Framer Motion animations, Zustand state management.
- **Features & Deployment:** Persistent particle system, Cross-page animations, Optimized performance, Custom easing functions, GitHub Actions CI/CD, S3 bucket hosting, CloudFront distribution, Route 53 DNS management, Custom domain configuration.

## **Machine Learning Projects**

# **NLP Disaster Tweet Classification**

Deep learning model using LSTM and GloVe embeddings to classify tweets as disaster-related or non-disaster. Achieved 82% accuracy with optimized threshold detection.

- Infrastructure & Model: CUDA-enabled GPU processing, TensorFlow mixed precision training, LSTM network with GloVe embeddings (300d), Bidirectional LSTM layers (64/128 units), Batch Normalization for stability, L2 regularization, Dropout layers (0.3 rate), Adam optimizer with tuned learning rate, Keras Tuner optimization.
- Preprocessing & Performance: Text tokenization and lemmatization, Custom contraction handling, Stop word removal, HTML entity decoding, Achieved Accuracy: 82%, Precision: 0.89, Recall: 0.71, F1-Score: 0.79, Optimized threshold: 0.374.

# Histopathologic Cancer Detection CNN

Deep learning model for detecting metastatic cancer in histopathologic tissue images using custom CNN architecture.

- Infrastructure & Architecture: Custom CNN architecture, ESRGAN super-resolution model, Keras Tuner optimization, Custom 4-layer CNN design, Batch normalization for stability, Dropout regularization (rate: 0.5382), Adam optimizer with tuned learning rate, Advanced data augmentation.
- **Performance & Optimization:** Achieved Accuracy: 86.89%, Precision: 84.95%, Recall: 82.20%, F1-Score: 83.55%, AUC-ROC: 0.9359, Hyperband tuning algorithm, Cross-validation with 3 folds, Dynamic threshold optimization, Early stopping with patience, Learning rate scheduling.

#### Certifications

AWS Solutions Architect - Associate AWS Cloud Practitioner Certified Kubernetes Admin (CKA) CompTIA Cloud+

 $\begin{array}{c} {\sf Azure\ Fundamentals}\\ {\sf CompTIA\ Security} + \end{array}$ 

ITIL v4

Linux Foundation Certified System Admin (LFCS)

CompTIA Linux+ CompTIA Server+ CompTIA A+ IBM Cloud Essentials

CompTIA Network+
Cloud Engineer IT Professional

#### Web Development Projects

# **Property Profit Calculator**

Mobile-friendly web app for calculating real estate sale profits.

- **Infrastructure & Frontend:** GitHub Pages hosting, Firebase Firestore database, Vanilla JavaScript with modular functions, Custom CSS animations and transitions, Mobile-first responsive design, HTML5 structure for accessibility, Custom calculation algorithms, Responsive UI components.
- **Backend & Deployment:** Firebase Firestore for data storage, Dynamic configuration loading, Secure document updates, Automated CI/CD with GitHub Actions, Version control and deployment, Security best practices, Real-time data synchronization, User authentication system.