Daniel J. Beckman

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# SUMMARY

AI/ML Engineer and backend developer with a Master’s in Computer Science and a diverse professional background. Extensive experience in computer vision, embedded systems, platform engineering, and military intelligence. Skilled in developing and deploying AI/ML prototypes, managing big data systems, and working in secure backend environments.

# EDUCATION

M.S. in Computer Science  
University of Colorado, Denver/Boulder – GPA: 3.55

B.A. in Ecology & Evolutionary Biology 3.12  
University of Colorado, Boulder

Pre-Medical Chemistry Coursework  
Northern Illinois University, DeKalb – GPA: 3.00

Advanced Counterintelligence Operations Course  
Joint Counterintelligence Training Academy

Persian Farsi Immersion Course  
Defense Language Institute

Counterintelligence Special Agents Course  
US Army Intelligence Center

# TECHNICAL SKILLS

Languages: Python, C++, Swift, C#, Objective-C, SQL  
ML/CV: TensorFlow, Keras, OpenCV2, U-Net, Stereo Vision, LiDAR, Point Clouds, Edge AI  
Data Engineering: Apache Airflow, GitLab CI/CD, JSON, Docker, Postgres, NoSQL  
Infrastructure: Kubernetes (KubeExecutor), ArgoCD, AWS (S3, EC2), RHOS  
Mobile/XR: iOS (ARKit, Swift), Unity

# PROFESSIONAL EXPERIENCE

## USGS – Platform Engineer

Enterprise Technology Office (ETO) | 2024–Present

- Maintain and refine secure Apache Airflow DAGs on Kubernetes and Docker-on-EKS.  
- Developed internal Auth Manager and dynamic mapping for ETF big data pipelines.  
- Wrote ArgoCD deployment documentation; work includes secure systems and GitLab CI/CD.

## USGS – AI Engineer & Prototyping Lead

Hydrologic Applied Innovation Lab (HAIL) | 2020–2024

- Cambot: Eigenfaces-inspired stage height predictor from grayscale imagery.

- Gage-Cam: U-Net staff gauge detector on Raspberry Pi with solar-powered telemetry.

- Stereocam: Stereo vision depth system using OpenCV2 + synchronized Raspberry Pi HQ cameras.

- Cuffee Beach XR: VR climate impact simulation using Unity and Shader Graph.

- iOS AR Apps: Swift-built apps for flood visualization and high water mark mapping.

- RockBLOCK Telemeter: Satellite-based, low-bandwidth image transmission system.

- Point Cloud Aligner: Python-based blind alignment for unreferenced 3D point clouds.

- Streamflow Edge AI: Deployed pre-trained model to low-power Raspberry Pi system.

- Bronx Zoo iPad App: Kiosk app for live water quality data display.

## USGS – Software Developer

Web Informatics and Mapping | 2018–2020

- Refactored a unified hazardous algae bloom (HAB) database using Python, replacing an unstable R implementation.  
- Contributed to C# backend of Short-Term Network for sensor data systems.

## Geneticist – Baby Genes, Inc.

2015

- Next Generation Sequencing.

## Confirmation Chemist – Forensic Laboratories

2014

- Chemical analysis.

## Counterintelligence Special Agent / Defense Contractor

2001–2013

- 202nd MI BN, Ft. Gordon, GA: Middle Eastern terrorism analysis post-9/11.

- 5th Special Forces Group, Iraq: Four combat tours; SME on Iraqi insurgencies.

- Advisor to Iraqi Special Operations Forces and Hostage Working Group.

- Contractor to Naval Special Warfare Development Group.

- Team leader in Afghanistan, overseeing CI support operations across northern provinces.

# AWARDS

Joint Service Commendation Medal, Army Commendation Medal, Army Achievement Medal,  
Army Good Conduct Medal, National Defense Service Medal, GWOT Expeditionary Medal,  
GWOT Service Medal, Iraq Campaign Medal, Army Service Ribbon, Overseas Service Ribbon,  
Overseas Service Bar (3rd Award)