David William Erwin

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LinkedIn | GitHub | Personal Site | Native English | Conversational Czech

PROFILE SUMMARY

Passionate Computer Science student with expertise in embedded programming and machine learning, with a particular interest in applying deep learning to financial forecasting. Skilled in collaborating with professional teams, leading small groups, and developing efficient machine learning pipelines and real-time hardware solutions. Excited to contribute technical expertise to impactful AI and ML projects.

EDUCATION

Czech Technical University (České Vysoké Učení Technické) Bachelor graduation: Summer 2025
Electrical Engineering and Computer Science

RELEVANT COURSEWORK

Bachelor Thesis – Augmenting point cloud data for deep learning by inserting real objects
- Supervisor – prof. Ing. Tomáš Svoboda, Ph.D.
- (In progress, expected: Summer 2025)

Computer Architectures – Semestral project
- Embedded programming project on a MicroZed board, led a small team in designing and implementing a multi-stage real-time program at the hardware level.

PROFESSIONAL EXPERIENCE

Team by Pablo Dylan – *Machine Learning Intern (Los Angeles)* June 2024 – August 2024
Supported a small team in:
- Data acquisition, transformation, and feature engineering to optimize dataset quality
- Designed and implemented an efficient data pipeline for seamless processing and model integration.
- Developed and deployed a custom neural network model tailored to meet project-specific objectives.

TECHNICAL SKILLS

Languages: Python, Rust, C, C++, Kotlin, Mojo, Go
Developer Tools: Git, GitHub Integration/Actions, Docker, API Implementation, Bash, PowerShell, Linux
Technologies/Frameworks: TensorFlow, PyTorch, Google JAX, NumPy, Pandas, Sci-Kit, Matplotlib

TECHNICAL EXPERIENCE & CERTIFICATIONS

For more projects, please visit my GitHub

Classification Neural Network – *Coded in pure C99* April 2024 – May 2024
- A full-fledged variable layer neural network that classifies 28x28 grayscale digits from the MNIST dataset

Supervised Machine Learning: Regression and Classification – *Stanford Online* October 2024
- Covers foundational techniques for training machine learning models, focusing on algorithms for regression and classification tasks, including linear regression, logistic regression, regularization, neural networks, and evaluation metrics like precision-recall and ROC curves.

PROFESSIONAL DEVELOPMENT & INTERESTS

Private Pilot License (PPL) Expected: June 2025
- Demonstrated strong decision-making skills, effective time management, situational awareness, attention to detail, and problem solving in high pressure environments through extensive training and flight experience.

Ice hockey player and Coach (Youth)
- 14+ years of private club ice hockey, USPHL Elite National Semifinalists 2021