# Nicholas Alexander Klos

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## **EDUCATION**

# University of Central Florida | College of Engineering and Computer Science

Orlando, Florida

Bachelor of Science in Information Technology

August 2025

- Relevant Coursework: OOP in Java, Numerical Calculus, Matrix and Linear Algebra,
  Data Structures and Algorithms, Statistics, Operating Systems, Enterprise Computing, Databases, Computer Networks, Web Development
- Honors: 2x President's Honor Roll, 2x Dean's List and Vice-President of Italian Society Club
- Professional Certificates: Introduction to Generative AI Learning Path by Google,
  AI Developer from IBM, TestOut IT Fundamentals Pro, AI Engineering from IBM

#### PROFESSIONAL EXPERIENCE

# Florida Solar Energy Center

Cocoa, Florida

Undergraduate Research Assistant - Data Scientist

October 2022 – July 2023

- Enhanced data processing capabilities by integrating statistical analysis with machine learning algorithms, resulting in a 35% reduction in processing time across 1.5 million data points.
- Conducted **in-depth performance analyses** of solar panels using **predictive modeling** and **big data analytics**, achieving a **30% increase in efficiency metrics** under varying **environmental conditions**.
- Developed and **deployed automated scripts** for **time series analysis** and **model optimization**, streamlining workflows that handled over **500GB of data weekly** while improving **model accuracy by 25%**.

PwC Milan, Italy

Data Engineer | ML Ops & AI Ops

May 2022 – July 2022

- Engineered advanced back-end data models within the Palantir Foundry platform, leveraging deep learning and neural networks to enhance data processing capabilities, achieving a 40% reduction in model training time across large datasets.
- Developed and optimized scalable data structures utilizing Spark Python API for a leading Italian bank, resulting in a 30% improvement in data flow efficiency and significantly enhancing cloud computing performance for AI applications.
- Implemented robust ETL pipelines to streamline data ingestion, transformation, and storage processes while maintaining high-quality standards; increased workflow efficiency by 25% and reduced error rates by 15% through meticulous database management with Oracle and Microsoft SQL Server.

## **PROJECTS**

Fashion-MNIST CNN Classifier | Convolutional Neural Networks

• Developed a CNN through training on the Fashion-MNIST dataset, achieving high validation accuracy and robust generalization on fashion-related images.

**Soccer Prediction Model** | Feedforward Neural Networks

• This project involves scraping data, processing the data, and building machine learning models to predict the standings for the 2024-2025 Serie-A season.

**Concrete Crack Detector** | Convolutional Neural Networks

• Developed a **Flask-based** web app for **detecting structural anomalies** using **deep learning**, ensuring **quality** and reliability in reporting.

## **TECHNOLOGIES**

- Back End Languages | Java, Python, PySpark, JavaScript, C++, Go, SAP ABAP
- Python Libraries | TensorFlow, PyTorch, Keras, scikit-learn, Hugging Face, matplotlib, NumPy, Pandas
- Databases | MySQL, PostgreSQL, MongoDB, SQLite
- Cloud | AWS, Azure, IBM Watson
- Web Frameworks | Django, Flask, Spring Boot, Express.js