

# Vladimir Cuc

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## EDUCATION

### **Florida Southern College, Lakeland, FL (Aug 2022 – Dec 2025)**

Bachelor of Science, Computer Science • GPA: 3.8/ 4.0

Java • Python • C++ • JavaScript • Agile • PyTorch • Keras • TensorFlow • Matplotlib • Neural Networks • PCA • GAs • Clustering • Azure • SQL

## PROFESSIONAL EXPERIENCE

**Academic Fuel, Florida Southern College** • Lakeland, FL (January 2024 - Present)

### Programming Language Tutor

- Increased student grades by 20% through engaging lesson plans that enhanced problem-solving and programming skills.
- Enhanced communication skills and deepened knowledge of Java and Python through teaching.

**Vertical Digital** • Oradea, Romania (May 2024 - August 2024)

### Software Engineer Intern

- Improved company processes, reducing data integration time by 30% through custom REST APIs that streamlined data extraction from Excel files.
- Enhanced data management efficiency by 40% through MongoDB and SQL integration, significantly improving data storage, retrieval, and overall system performance.
- Developed payment processing solutions using Agile methodology, simulating 1,000+ financial transactions for testing accuracy.

## PROJECTS AND COURSEWORK

### Projects

#### PCA Survivor Face Recognition (Fall 2024):

- Applied PCA to reduce dimensionality of 839 images, retaining 90% variance, and used Nearest Neighbors for facial similarity with a 15.78 distance metric.
- Used K-Means Clustering to classify images into 20 clusters, gaining experience in data processing, feature extraction, and clustering. [GitHub](#). [Python](#).

#### Genetic Algorithm for Disney Trip Planning (Fall 2024):

- Created a Genetic Algorithm to optimize Disney World itineraries by maximizing a fitness function within defined time constraints.
- Achieved efficient route planning using tournament selection, 3-point crossover, and adaptive mutation. [GitHub](#). [Python](#)

#### Diabetes Prediction using Neural Networks (Spring 2024):

- Trained neural networks with PyTorch and Keras to predict diabetes, using 2,460 training instances and 308 for evaluation.
- The project analyzed predictions and accuracy using eight health indicators, including Glucose, BMI, and Age. [GitHub](#). [Python](#)

### Relevant Coursework

- Advanced Topics in Artificial Intelligence (Fall 2024): Explored unsupervised learning, evolutionary algorithms, and deep learning in Python, including dimensionality reduction and neural networks.
- Machine Learning (Spring 2024): Explored fundamental machine learning models and methods in Python, covering regression, neural networks, SVMs, and recommender systems.
- Software Engineering (Spring 2024): Completed a term project using Agile processes, prototyping, and Python API integration, managing documentation and implementation.

## AWARDS AND SOFT SKILLS

- 3rd place at County Olympiad in Computer Science**
- ECDL Certificate** in MS Word, MS Excel, MS Access, UC, and Internet
- Microsoft Certified in:** Azure Fundamentals & Security, Compliance, and Identity Fundamentals