Elson Cibaku, PhD(c)

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EDUCATION

New Jersey Institute of Technology   **New Jersey/USA**
PhD, Industrial Engineering   Expected May 2024

- **GPA:** 4.0 / 4.0

  Relevant Coursework: Stochastic Programming / Data Mining / Supply Chain Engineering / Machine Learning / Statistical Methods in Data Science / Optimization Techniques for Data Engineering / Advanced Topics in Operations Research

University of Tirana   **Tirana/Albania**
MSc, Computer Science   Oct 2013 - Jul 2015

  Relevant Coursework: Parallel Programming / Coding Theory and Cryptographies / Advanced Operating Systems / Algorithmic / Advanced Object-Oriented Programming / Software Engineering / Networks Architecture / Artificial Intelligence / Web Developing / Databases / Artificial Intelligence

University of Tirana   **Tirana/Albania**
BSc, Computer Science   Oct 2010 - Jul 2013

WORK & LEADERSHIP EXPERIENCE

New Jersey Institute of Technology   **New Jersey/USA**
Research Assistant   Sep 2021 - Present

- Collaborated on research projects leading to the following impactful papers:
  - "Boosting Efficiency in State Estimation of Power Systems by Leveraging Graph Attention Networks"
  - "A Reinforcement Learning Approach to Effective Vaccine Distribution"
  - "Graph-Aware Deep Reinforcement Learning for Enhanced Multi-Pickup and Delivery Problem Optimization"

New Jersey Institute of Technology   **New Jersey/USA**
Teaching Assistant   Sep 2021 - May 2023

- Assisted in the development of instructional materials for various courses, including System Analysis and Simulations / Applied Statistical Methods / Engineering Economy and Capital Investment / Work Measurements & Standards.
- Conducted grading and assessment activities, ensuring fair and consistent evaluation of student performance.

Impala Digital   **Tirana/Albania**
Lead Software Engineer   Feb 2021 - Aug 2021

- Orchestrated tech stack adoption and infrastructure setup, leveraging C#, .Net Core, and event-driven architectures, resulting in streamlined API development and deployment.
- Led cross-functional teams, fostering collaboration and knowledge sharing, while championing best practices in CQRS, SQL databases, and Data Warehousing.
- Successfully executed projects on Azure Cloud, ensuring seamless product integration and scalability.
- Developed a C# cache library, improved system performance by 23% for enhanced user experience.

University of Tirana   **Tirana/Albania**
Lecturer   Oct 2016 - Aug 2021
- Delivered lectures and supervised master and undergraduate students in various courses, including Service Oriented Architectures / Data Warehouse / Systems Analysis and Design / Computer Organization and Architecture / Operating System.
- Actively contributed as a "Data Analysis" Scientific Group member, engaging in research and collaboration within the academic community.

Facilization   **Tirana/Albania**
Senior Software Engineer   Sep 2013 – Feb 2021
- Led and delivered critical projects:
    - Spearheaded the development of a scalable backend for Virtual IBAN, resulting in streamlined payment processes and improved reconciliation for European Merchant Bank UAB.
    - Achieved significant performance improvements by optimizing SQL queries for the Bank of Albania's Credit Registry, enhancing application responsiveness, and reducing database costs.
    - Contributed to the creation of a web-based statistical application for Bank of Albania, providing vital data for policy-making and decision-making in the financial sector.
    - Architected and developed the FATCA Reporting System for Tirana Bank, achieving precise compliance with IRS regulations. This system optimized data gathering and processing, and ensured secure data transmission, enhancing regulatory reporting efficiency and accuracy.
- Recognized with the Innovation Award in 2018 for outstanding contributions to software development.

SKILLS & CERTIFICATIONS

Languages: Albanian (native), English (proficient)
Programming Languages: Python | C# | Java
Machine Learning: Supervised Learning (Regression | Classification) | Deep Learning (Neural Networks | Transformers | Generative Models | Transfer Learning | NLP models) | Unsupervised Learning (Clustering | Dimensionality Reduction | Anomaly Detection) | Reinforcement Learning (Policy Gradient Methods | Deep Q-Learning | PPO | TD Learning) | Generative Adversarial Networks
Data Processing & Visualization: Tableau | Matplotlib | Looker Studio | Power BI
Data Technologies: Data Mining | Big Data Life Cycle | Google Big Query | Data Warehouse | Data Structures
Web Development: .NET Core | ASP.NET Web API | CQRS
Database Management: Relational Database (SQL Server | Oracle Database | PostgreSQL) | Indexing Strategies | Data Modeling | Performance Tuning and Optimization | NoSQL Database (MongoDB)
Cloud Services: Microsoft Azure | Google Cloud Platform | Amazon Web Services
Application Servers: Keycloak | WildFly | NGINX | Microsoft IIS
Other Tools: Redis | DevExpress XAF
Certifications:
  - MCSA: SQL 2016 Business Intelligence Development
  - MCPS: Microsoft Certified Professional
  - Exam 767: Implementing a Data Warehouse
  - Exam 768: Developing SQL Data Models
  - Exam 463: Implementing a Data Warehouse with Microsoft SQL Server 2012/2014
  - Oracle Database 12c: SQL Fundamentals