

TUDOR JIANU

Software Engineer

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SUMMARY

Emerging software professional eager to build skill set with high-value contributions. Applies a diverse range of knowledge to create quality code. Excels in fast-paced environments with focus on growth and development.

EDUCATION

Ph.D. in Artificial Intelligence

University of Liverpool

- Developed an endovascular simulator, **CathSim**, using Python
- Deployed scripts on HPC's (Barkla)
- Researched and applied state-of-the-art **neural network** architectures
- Created an autonomous agent capable of performing endovascular navigation tasks
- Presented at the Hamlyn Symposium of Medical Robotics

Master of Science in Data Science and Artificial Intelligence

Distinction

4.0 / 4.0

University of Liverpool

- M.Sc. Project (76) "*Reducing Tactile Sim2Real Domain Gaps via Deep Texture Generation Networks*"
- Demonstrated comprehensive understanding and application of **database systems**, **artificial intelligence**, and **bio-inspired algorithms** for complex problem-solving, optimization, and autonomous agent design
- Developed a strong foundation in programming principles with a focus on **object-oriented design**
- Showed proficiency in cutting-edge areas of **machine learning**, **data mining**, and **data visualization**

Bachelors of Arts in Business Administration

First Class Honours

4.0 / 4.0

Coventry University

- Conducted a statistical study on the effect of personality on the attitudes towards SME
- Created a retirement plan utilizing Markowitz portfolio balancing theory
- Explored risk mitigation strategies within investment scenarios

EXPERIENCE

Ph.D. Candidate

University of Liverpool

11/2021 - Present

- Supervised and guided trainee researchers, providing essential technical advice to foster academic development
- Developed demonstrations for **SmartLab** using industrial manipulators (UR5) and instance segmentation networks (Mask-RCNN)
- Demonstrated the laboratory capabilities to various industry partners, bolstering potential collaborations and funding opportunities in the field of robotics
- Lead architect of the "*Digital Theme UK-Ukraine Twinning Initiative*" virtual conference
- Teaching Assistant** for "Robotic Perception and Manipulation" and "Computer Vision" modules

VOLUNTEERING

Demonstrator

University of Liverpool

11/2020 - Present

- Developed an **Introduction to Machine Learning** activity as part of Computer Science Summer School **activities**
- Created Machine Learning **activities** by modifying TypeScript and HTML code
- Delivered an Introduction to Programming Workshop at Liverpool World Museum using Pi2Go robots

President of Data Science and Artificial Intelligence Society

University of Liverpool

11/2020 - 05/2021

- Organized Data Science networking and training events
- Set aims and objectives in order to improve the society while securing the commitment of others
- Built the committee for the society, advertised roles and advocated conflicts

SKILLS

Technical Skills

Machine Learning

Algorithms

Data Mining

Data Visualization

Artificial Intelligence

Database Systems

Software Development

Finance

Statistics

Tool / Technology

Soft Skills

Planning

Problem-Solving

Collaboration

Communication

Active Learning

Innovation

Mentoring

Creativity

Organization

Leadership

Responsibility

Programming Languages

Python

Racket

Ruby

SML

Bash

HTML

CSS

SQL

Tools

VIM

Docker

Linux

Git

Jupyter Notebooks

EXTRA COURSES

Introduction to Computer Science with Python

Massachusetts Technology University

How to Code: Simple/Complex Data

University of British Columbia

Programming Languages

University of Washington

PUBLICATIONS

CathSim: An Open-source Simulator for Autonomous Cannulation

arXiv

<https://arxiv.org/abs/2208.01455>

Reducing Tactile Sim2Real Domain Gaps via Deep Texture Generation Networks

International Conference on Robotics and Automation (ICRA)

<https://ieeexplore.ieee.org/document/9811801>

Translating Simulation Images to X-ray Images via Multi-Scale Semantic Matching

arXiv

<https://arxiv.org/abs/2304.07693>