REZA KALANTAR

PhD Deep Learning Research Student

PERSONAL PROFILE

I am a highly energetic, goal-driven and intellectual-ly-curious researcher with a unique skills-set in software, engineering and technology. My deep interest in innovation, technology and improving others' lives, along with my strong academic background, have vastly intrigued me to pursue an exciting career in pushing the boundaries of artificial intelligence and generate new ground-breaking ideas.

COMPUTER SKILLS

Programming Languages

Proficiency in Python, Matlab & C++
SWIFT iOS App Development

Practical Experience

Deep Learning (Pytorch/Tensorflow)
Machine Learning (Sci-kit Learn)
Computer Vision
Linux and Mac Operating Systems
3D Reconstruction&Pose Estimation
Medical Image Processing
CAD Modelling
Finite Element Analysis (FEA)

Career Interests

Artifitial Intelligence (AI) &
Deep Learning in Healthcare
Technology Innovation

CONTACT DETAILS

Address

Flat 37, Pinnacle Apartments, Saffron Central Square, Croydon, Surrey, UK

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Email: Reza.Kalantar@icr.ac.uk

LinkedIn: www.linkedin.com/in/reza-kalantar

Github: https://github.com/rekalantar

EDUCATION

INSTITUTE OF CANCER RESEARCH, LONDON, UK
OCT 2019 - PRESENT

PHD ARITIFICIAL INTELLIGENCE IN MR IMAGING

Research Focus: Developing artificial intelligence (AI) models for image synthesis, disease detection and segmentation for cancer diagnosis, radiotherapy planning and treatment response monitoring

IMPERIAL COLLEGE LONDON, LONDON, UK
SEP 2018 - SEP 2019
DISTINCTION

MRes MEDICAL ROBOTICS AND IMAGE-GUIDED INTERVENTIONS

Individual Project: Gaze-guided assistive robotics for patients with motor impairment using deep learning (Object detection, 3D pose estimation & ROS)

Team Project (Team Leader): Dietary intake recognition and volume estimation through object detection and Simultaneous Localisation and Mapping (SLAM)

UNIVERSITY OF LEEDS, LEEDS, UK
SEP 2013 - JULY 2018
UPPER SECOND CLASS

MEng & BEng MEDICAL ENGINEERING

Key Skills: Programming experience in Matlab, Python and LabView - Product design (Solidworks), development and analysis (FEA) - Grasp of medical devices - Practical experience with various multidisciplinary and challenging projects in medical technology

HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY, HONG KONG
SUMMER 2017
PASS

BUSINESS AND TECHNOLOGY INNOVATION (STUDY ABROAD)

Key Skills: Research and exposure to emerging technology startups (i.e. emerging technologies in artifitial intelligence & medical diagnosis)

SIMON FRASER UNIVERSITY, VANCOUVER, CANADA
SEP 2015 - JUNE 2016
PASS

ENGINEERING SCIENCE AND PHYSIOLOGY (STUDY ABROAD)

Key Modules: Linear algebra, vector calculus, engineering science, kinesioogy, physiology and biomechanics

UXBRIDGE COLLEGE, LONDON, UK
SEP 2011 - JULY 2013
A*AAB

A-LEVELS

Subjects: Mathematics, Physics, Further Mathematics and Persian Language

Achievements: Two certificates of achievements as a high achieving student in As/A2 Mathematics and Further Mathematics - Featured in a local newspaper as an outstanding

PUBLICATIONS

MDPI DIAGNOSTICS JOURNAL
OCT 2021

Automatic Segmentation of Pelvic Cancers using Deep Learning: State-of-the-Art Approaches and Challenges (First Author)
DOI: 10.3390/DIAGNOSTICS111111964

FRONTIERS IN ONCOLOGY JOURNAL
JUL 2021

CT-Based Pelvic T1-Weighted MR Image Synthesis Using UNet, UNet++ and Cycle-Consistent Generative Adversarial Network (Cycle-GAN) (First Author)
DOI: 10.3389/FONC.2021.665807

INTERNATIONAL ORTHOPAEDICS JOURNAL
MAY 2020

Deep learning COVID-19 detection bias: accuracy through artificial intelligence (Second Author)
DOI: 10.1007/S00264-020-04609-7

CONFERENCES

ISMRM 2021
ABSTRACT & DIGITAL POSTER

CT-based Synthetic pelvic T1-weighted MR image generation using a deep convolutional neural network (CNN) (First Author)

ISMRM 2020
ABSTRACT & DIGITAL POSTER

Synthetic MRI-assisted Multi-Wavelet Segmentation Framework for Organs-at-Risk Delineation on CT for Radiotherapy Planning (First Author)

HAMLYN SYMPOSIUM ON MEDICAL ROBOTICS 2019

Gaze-Guided Assistive Robotic Suite For Patients with Motor Impairment (First Author) - Winner of best research & innovation poster

CERTIFICATES

NVIDIA
OCT 2020

FUNDAMENTALS OF DEEP LEARNING
• Essential skills in image processing and natural language processing using deep learning

UDEMY
NOV 2020

PYTORCH FOR DEEP LEARNING
• Practical Pytorch skills for deployable AI algorithms

DEEPLEARNING.AI
SEP 2020

AI FOR MEDICAL DIAGNOSIS
• Practical AI deployment in medical imaging

UDEMY
MAY 2019

MACHINE LEARNING A-Z: HANDS ON PYTHON AND R IN DATA SCIENCE
• Fundamentals of machine learning for data science

ICDL FOUNDATION
JULY 2011

INTERNATIONAL COMPUTER DRIVING LICENSE (ICDL)
• Essential computer processing skills

ADDITIONAL SKILLS

- Excellent organisational and analytical skills
- High quality research paper writing and presentation skills
- Ability to perform in high pressure environments
- Transferrable skills in software and hardware engineering from academia to industry/higher level education
- Competency in graphical design using digital software (i.e. Adobe Illustrator and Photoshop)

EXPERIENCE

IMPERIAL COLLEGE LONDON, LONDON, UK
OCT 2018 - SEP 2019

COURSE REPRESENTATIVE
Responsibilities: Regular staff/student meeting - Effective communication with different individuals
Skills Developed: Strong communication & leadership

NIKA ARVIN POUYA LTD. HONG KONG, IRAN
MAY 2017 - OCT 2017

INTERNATIONAL REPRESENTATIVE (MEDICAL DEVICES)
Responsibilities: Formal regular meetings and events with emerging medical and healthcare startups - Develop technical and market understanding to share with the team

SAMEC TRUST CHARITY LONDON, UK
AUG 2012 - JULY 2013

HEALTH CAMPAIGN ORGANISER
• Creating campaigns and weekend charity events
• Developed strong social and communication skills

COURSEWORK SUPPORT CENTRE (CSC) LONDON, UK
NOV 2011 - MAR 2012

ENGINEERING MATHEMATICS TUTOR
• Teaching and mentoring engineering mathematics
• Developing regular teaching plans and assessments
• Achieved remarkable progress in students grades, all passed

REFERENCES

Available upon request