Ben Snow
Machine Learning Specialist

I am an independent machine learning contractor specialising in computer vision and cloud computing. My experience with Microsoft Azure and Google Cloud Platform allow me to take proof of concept research and transform it into scalable business products to meet consumer needs. As a trained experimental physicist, my attention to detail and scientific approach ensures I make informed decisions and allows me to understand up-to-date machine learning literature. I am looking for Outside IR 35 contracting work in machine learning and computer vision.

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PROGRAMMING SKILLS

Python · GCP · Tensorflow · Keras · Azure · Pytorch · OpenCV · Git · Numpy · Pandas · MATLAB · C++ · Unreal Engine 4 · C# · Unity3D

RESEARCH INTERESTS

Computer Vision

Machine Learning

ML Operations

Physics simulations

EDUCATION

EngD: Doctor of Engineering (Interrupted studies)
Bournemouth University - Centre for Digital Entertainment

09/2019 - 01/2022

Experience
- Data Mining and Analytic Technologies (91%) and Computer Vision with Python (86%)
- C++ development in Unreal Engine 4 of a Realistic Hovercraft simulator for training pilots
- C# Unity development of digital game for drone delivery

MPhys: Master of Physics
University of Manchester (Graphene and 2D materials group)

09/2015 - 06/2019   *2:1 Upper second-class honours*

Experience
- Relevant Masters Units: Linear Algebra, Advanced Experimentation, Statistical Mechanics
- Masters thesis: Magnetotransport in 2D thin cobalt films for Graphene spintronics applications
- Year abroad at the University of Maryland College Park, USA - Graduate Solid State Physics, Scientific Computing, Quantum Physics, Accelerator Physics

WORK EXPERIENCE

Research Engineer
Griffon Hoverwork Ltd

06/2020 - 01/2022   *Remote, UK*

Achievements/Tasks
- Wrote bi-weekly reports and held meetings with stakeholders to provide updates on project progress
- Scoped, designed, coded, and delivered a usable Hovercraft simulator 12 months ahead of schedule on a 3 year industry placement
- Created automatic post-flight debriefing report executable program in python using data generated from simulated hovercraft
- Produced a series of promotional videos of simulator progress: https://youtu.be/fW1yrfLfIqA

Contact : Prof Jian Chang - jchang@bournemouth.ac.uk

SOFTWARE PROJECTS

Depth prediction using video game data using machine learning (03/2020 - 06/2020)
- Generation of over 15,000+ RGB/Depth images for use as a training dataset from Grand Theft Auto 5
- Used Pytorch and OpenCV to create a densely connected convolutional network to predict depth from still frame images

An analysis of different neural network classification algorithms for identifying foetal wellbeing (09/2019 - 12/2019)
- Used a Google Colab based Jupyter notebook along with Keras, Numpy, and Pandas to analyse a large medical dataset to help detect severe foetal health problems
- Used Adaptive Synthetic upsampling to increase learning capability in a very unbalanced dataset

A finite-difference approach to solving the Navier-Stokes equations for the 2-D Lid Driven Cavity problem (01/2018 - 04/2018)
- Derived a finite-difference scheme from first principles for solving the Navier-Stokes equations on a grid
- Used MATLAB to visualise the velocity and pressure fields calculated from the finite-difference scheme