🤳 07510897075 🔗 <u>sam.karet.co.uk</u> 🔽 samuelkaret@gmail.com 🖬 linkedin.com/in/sam-karet 🎧 github.com/SamKaret

ABOUT

Since graduating in 2021 from Imperial College London with a Master's in Biomedical Engineering, I have helped manage preclinical studies for medical devices, used my multidisciplinary background for a variety of projects, and now I'm looking for what's next. I'm a self-motivated, logical, and analytical problem solver; with wideranging interests, and a solid understanding of the fundamentals of various engineering disciplines.

EMPLOYMENT HISTORY

MTI Ltd

Graduate Engineer

- Worked on a variety of projects to improve processes and documentation, whilst gaining exposure to all aspects of the manufacturing process.
- Sourced parts for and installed improved salt residue removal systems, enabling a 200% increase in throughput of parts through the process.
- Designed and 3D printed bespoke parts, jigs, and fittings for a variety of applications.

The Griffin Institute

Research Assistant/Study Director

- Liaised with clients, wrote study plans and reports, and oversaw successful completion of studies as a study director.
- Responsible for the day-to-day running of the Clinical Pathology Laboratory.
- Wrote and reviewed SOPs in compliance with GLP.
- Acquired, organised, and maintained equipment and supplies necessary for studies.
- Developed and performed Computer Systems Validation procedures for equipment to be used within GLP studies.

Mytos (Cytera CellWorks)

Assembly Engineer

- Assembled consumable products for clients, and prepared components for non-consumable devices.
- Designed and assembled specialised consumables for internal use.
- Amended existing documentation and produced new documentation for consumable products.

MahiGaming

2-week Internship

Took the opportunity to spend 2 weeks in Florida at MahiGaming, an agile and dynamic development house that creates software for slot machine style gaming products, and gained an understanding of how games are designed and created in an Agile framework.

- Updated risk mitigation plan documentation and worked on a system to integrate the risk mitigation documentation into task tracking software (Jira). Required learning some database theory and SQL.
- Shadowed leader of the Marketing Readiness and Logistics team in inter-disciplinary team meetings and learnt about the design process of video games.

Imperial College Advanced Hackspace

Hackspace Helper

- Built, fixed, upgraded, and maintained a variety of 3D printers.
- Taught inexperienced members how to use equipment.
- Prepared circuitry and electronic component kits for outreach programs.
- Provided general help and support to the hackspace's members.

August 2020 – November 2020

Florida, USA

September 2019

London, UK

December 2021 - May 2023

October 2023 - Present

London, UK

London, UK

London, UK

June 2019 – September 2019

EDUCATION

Imperial College London

MEng Biomedical Engineering (2:1)

- Final Year Project Volumetric Infrared Imaging System (VIRIS) for the monitoring and diagnosis of breast-cancer related lymphoedema. Designed, built, and tested device prototypes as well as produced an app to ease user interaction (coded in MATLAB). Also organised and implemented a study of the device's efficacy on human subjects.
- 3rd Year Project Produced a library of synthetic biological toggle switches using a variety of in silico and in vivo synthetic biology methods and techniques.
- 2nd Year Project Functional electrical stimulation bike pedal designed and built using CAD, programmed with Python to give real-time performance feedback for use by a paraplegic athlete in the cybathlon.
- Key Modules Biomechanics, Medical Imaging, Biomimetics, Hearing and Speech Processing, Human Neuromechanical Control and Learning, Programming, Electromagnetics, Signals and Control, Medical Device Entrepreneurship.

Yavneh College

A Levels (June 2017): Maths(A), Physics(A), Further Maths(A) GCSEs (June 2015): 10 GCSEs grade A-C with 5A*, 3A, 1B, 1C

TECHNICAL SKILLS

Programming Languages: Python, C++, MATLAB, LaTeX Hardware: 3D Printers (FDM), Soldering, TIG Welding, Prototyping (breadboard/veroboard), Arduino, ARM Mbed CAD: Fusion360

OTHER PROJECTS AND INTERESTS

Repetitive Load Testing Device for Tendon Wound Healing Studies

- Developed a device for repetitively loading and unloading treated tendons to a predetermined strain for use in wound healing studies.
- Designed parts and generated 3D CAD models/.stl files which were then 3D printed, assembled, and tested.
- Programmed an arduino nano micro-controller to control a NEMA 17 stepper motor for position control.
- Wrote documentation for assembly, use and preparation of the device and trained researchers on all aspects of how to use the device.

Bnei Akiva Youth Organisation | *Camp Technical Organiser (Voluntary)*

Held role of Technical Organiser on 6 summer and winter camps, with responsibilities involving:

- Managing and training a team of between 5 and 15 people to cater and provide food for circa 100-300 children, 3 meals a day for 2-3 weeks.
- Ensuring equipment and necessities are in the correct location and in working order at the correct times, often delegating tasks and using forms/spreadsheets to manage a limited amount of equipment shared between multiple camps running simultaneously.
- Ensuring risk assessments and fire safety measures are adhered to and taking damage assessments of the site at the start/end of the camp.
- Organising and running a tuck shop, for which I wrote an executable program in python using PyQt and JSON, which is available on my GitHub linked above.
- Liaising between site staff and youth organisation volunteers and participants to facilitate solving of issues and arrangement of activities.
- The role involved being in loco parentis and as such I was DBS checked and trained in safeguarding responsibilities.

Sep. 2017 – June 2021

Borehamwood, UK

April - May 2023

July 2016 – August 2021

2015/2017