

# Igor Sterner

Multilingual Engineer

IET Diamond Jubilee Scholar

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- Full Driving License

## Languages

- English (Native) ● ● ● ● ●
- Swedish (Native) ● ● ● ● ●
- Chinese (~ HSK4) ● ● ● ● ●
- German (Goethe B2) ● ● ● ● ●

## Programming

- Python ● ● ● ● ●
- C++ ● ● ● ● ●
- Matlab ● ● ● ● ●
- LaTeX ● ● ● ● ●

## Additional skills

- Microsoft Office (full package) ● ● ● ● ●
- Version control (Git) ● ● ● ● ●
- Operating systems (all) ● ● ● ● ●
- Social media (all platforms) ● ● ● ● ●

## References

**Professor Gábor Csányi**  
Director of Studies  
University of Cambridge  
gc121@cam.ac.uk

**Mr Thomas Endres**  
Managing Partner  
TNG Technology Consultancy GmbH  
thomas.endres@tngtech.com

## Education

2019–23

**MEng, University of Cambridge**  
**Information and Computing Engineering**

Pembroke College

4th year - machine learning, deep learning, computer vision, advanced information theory and computational neuroscience

*Thesis:* Vision Encoders in Visual Question Answering  
*Dissertation:* Automatic Detection of Syntactically Mismatched Code-Switched German-English Tweets

3rd year - advanced statistics, information theory, control theory, neuroscience and design

1st year & 2nd year - mechanics, structures, materials, thermofluids, electrical and information engineering

– Compiled a dataset of Code-switched German-English Tweets for large-scale training, working with a variety of NLP tools in Python (*project prize winning, top ranked*)

– Collaborated with the Centre for Global Equality to design a gas connector adaptor for LEDC hospitals. Gained attention from the Every Breath Counts Coalition and WHO members

– Project managed 4 week team robotics project to design an autonomous robot running on an Arduino using C++

2017–19

**A-Levels - A\*A\*A\*A\*B**

Tiffin School

Maths, Further Maths, Physics, Chemistry and Chinese

2012–17

**GCSEs - 10 A\*s** as academic scholar

Trinity School

## Work experience

Summer  
2021

**Junior Consultant**

TNG Technology Consultancy GmbH (Remote)

Joined the Innovation Hacking team to work on *neural machine translation*. Increased the functionality of a translator tool to support German and Hungarian, training a model in Python using Google Trax and running evaluation (BLEU/ROUGE). Attended the annual Machine Translation conference virtually

Summer  
2020

**Research placement**

The Future Lab, Tsinghua University (Remote)

Supported a team developing graphical tactile displays for the visually impaired: interviewing, researching and reporting

July 2018

**Robotics work experience**

Imperial College London

Constructed a fully 3D-printed robot able to solve the Rubik's Cube using a Raspberry Pi and Fusion 360 CAD software

## Awards & Grants

2019–23

**IET Diamond Jubilee Scholar**

An ambassador for the Institute of Engineering and Technology, promoting engineering by giving outreach talks, hosting the on-line #PresentIn10 competition and attending other IET events

2022

**A.J. Pressland Fund & Kurt Hahn Trust**

Received grants to attend an intensive course in German language and culture at Heidelberg University, Germany

2019

**National winner - Imperial College Science Challenge**

Wrote a creative piece 'How will A.I.s turn art into science?'

## Interests

Culture

**Student host of the sixth annual China Goes Global event**

Co-organised and co-hosted an event with guest speaker Professor Rana Mitter OBE and others

Coding

**Regularly implement novel ideas**

Linked GPT-3 summarizer with DeepL translation API to do Chinese article summarization homework

Sport

**Co-president of the Cambridge University Real Tennis Club**

An active committee member and a competitive player