Neel Le Penru

MEng Design Engineer • neel.le-penru16@imperial.ac.uk • +447812657949
linkedin.com/in/neel-le-penru • portfolio: neellepenru.com

I work at the intersection of creativity and technology, across hardware and software. A recent graduate of the Imperial College Dyson School of Design Engineering, I am particularly passionate about music (as listener, musician, and technologist), art, and technology at large, and have a deep care for sustainability. I seek to leverage design thinking with engineering knowledge, refined through over twenty projects and experience at Dyson, to create meaningful experiences and impactful innovation towards a more sustainable, compassionate, and inclusive world.

Skills

Technical
- Coding: *Python, MATLAB, Max/MSP/Jitter, HTML.*
- *Arduino, Raspberry Pi,* & *PyBoard* micro-controllers.
- Interaction design & HCI.
- CAD: *SolidWorks* (incl. FEA and Technical Drawing), *Fusion 360* (incl. Generative Design), *Keyshot.*
- Metal-work, wood-work, laser cutting, 3D printing.

Creative
- *Adobe* Suite: *Illustrator, Photoshop, Premiere Pro.*
- Rapid & low-fidelity prototyping, sketching.
- Ideation, design thinking, sustainable & human centred design.
- Music recording and production, ABRSM Grade 7 Piano & 8 years' experience playing Guitar.

Collaborative/Expressive:
- Public speaking (Co-lead of St. Paul's Public Speaking Society).
- Teamwork & team management (co-founded two student businesses).
- Languages: English (native), French (fluent), German (CEFR B1).

Education

Design Engineering MEng • Imperial College London, UK • 2016 - 2020
- First Class Honours (72.7%); Faculty of Engineering Dean's List (top 10% of cohort) in 2016/17, 2018/19 & 2019/20.
- Master's Project: *Haptaesthesia - Development of a Bi-directional Interface for the Control of Sound through Physical Shape and Texture.*
- Modules include: *Future Music Group Project, Audio Experience Design, Computing, Data Science, Sensing & IoT, Design for Additive Manufacturing, Industrial Design, Electronics, Mechanics, Robotics, Sustainable Design, Humanities Project, Enterprise Roll Out.*
- Extra-curricular modules: *Sound Technology, Music Technology, Introduction to Philosophy,* and *Visual Culture, Knowledge and Power.*

St. Paul's School, London, UK • 2009 - 2016
- Senior Scholar and part of 4% of students to receive a means-tested bursary.
- A-levels: Maths (A*), Further Maths (A*), Physics (A*), English Lit. Pre-U (D1/A**).
- GCSE: 11 A*s including Maths and English Language.
- Part of Team Impulse, winners of 2015's ESA CanSats in Europe competition.

Experience

Consultant Design Engineer • Maskware 47, London, UK • Aug. 2020 - Now
- First engineer/designer to join this new startup creating best-in-class, high-tech face-masks capable of destroying SARS-CoV-2 (novel 2019 coronavirus).
- Working with business/finance experts and scientific researchers to lead the early-stage design and plan the development of Maskware 47's first products.

Placement Design Engineer • Dyson, Malmesbury, UK • Apr.-Sept. 2019
- Research, Design and Development Internship in *Floorcare* New Product Development, consisting of 4 projects (2 self-initiated) on data analysis, product and mechanical design, and sustainability. Also shadowed acoustic engineers.
- Cross-Team Recognition Award, earned after 2 weeks for improving data science methods in the Human Factors team; also gained skills in Failure Modes and Effects Analysis, defining product requirements, and building test rigs.

Acoustic Design Engineer • Imperial College London, UK • Jul.-Sept. 2018
- Research Opportunity funded by the Imperial Dyson School to treat the acoustics of its new department building, including the design and manufacture of an acoustic installation piece using hats and sound diffusing foam.
- Awarded 25% additional funding for the installation's success.

Additional Responsibilities & Interests
- Participated in Abbey Road Studios' first 'hackathon' (Nov. 2018); demoed 3D audio software for a conference at the V&A museum (Oct. 2018); helped exhibit an audio-visual installation at the 2018 London Design Festival.
- Design lead of *BookBox*, a student-run charity creating infrastructure to increase book donations to schools.
- Treasurer (2019/20) and Chair (2018/19), Alternative Music Society; Community Events Manager (2019/20) and Social Activities Manager (2018/19), Design Engineering Society (Imperial Society of the Year 2018/19).
- Elected as Wellbeing Representative for second year MEng Design Engineers, 2017/18.
- In free time, I love to create music, develop and print film photographs, attend exhibitions and concerts, and discover new cultures. I also occasionally contribute to the music section of Imperial's student paper *Felix*.

References available upon request.