# ケンリイ Ken Keong Lee

## Personal Statement

After 3 years in DRAM design, I am looking for new opportunity within the realm of semiconductor circuit design. I am intrigued with the advance design tools beyond DRAM design such as Systhesis, APR, Pulsic, Analog floor planing, etc. The past 3 years in DRAM design, I was trained in various design task from design row circuitry, spice verification, layout. Through various projects, I was trained in different part of the DRAM design flow. During downtime between projects, I explored various open source circuit design projects such as Skywater, Efabless, Opensource EDA tools.

## Work Experience

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| Period | **Aug 2020 ∼** |
| Employer | **Zentel Japan** ゼンテルジャパン 大阪 |
| Job Title | **Senior Engineer 主任技師** |
| | JEDEC compliant DRAM circuit design, mainly Spice verification. Involved in ∼4 projects, including one custom DRAM project. Job scope involves from standard cells, circuit block design, verification. Job task involved layout, digital&Analog circuits. DRAM testing theory, 1C1T row/column redundancy |
| Period | **Oct 2019 — March 2020** |
| Employer | **Osaka University 大阪大学** |
| Job Title | **Research Assistant** |
| | Neutrinoless double beta decay, cryogenic scintillating sensor, data analytic |
| Period | **July 2014 — Aug 2014 (Summer placement)** |
| Employer | **Oxford Instrument** Tubney Woods, Oxfordshire |
| Job Title | **SEPnet Student summer placement** |
| Mentor | **Daniel Strange, daniel.strange@oxinst.com** |
| | 2 months internships, cryogenic superconducting magnet, problem solving |

## Personal Skills

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| **Language** | English(native), Chinese(native), Malay(Fluent), Japanese(Business, JLPT N2), Cantonese(Conversational), |
| **EDA DRAM** | schematics-Virtuoso, layout-Jedat's ISMO, Calibre, spice-Finesim, pre/post RC spice, verilog pattern generation, |
| **Semiconductor basic** | transistors-Undergrad, Logics gates-Undergrad, circuit design-current job |
| **Self Learn EDA** | OpenROAD - synthesis, floorplan, APR (CTS, routing) Memory hierarchy, basic instruction set architecture |
| **Programing** | Python, C/C++, CAD, Labview, LaTeX, Git, Markdown Pytorch, FEA-ANSYS, KiCAD, ROOT, Geant4 |
| **Experiences** | Dilution refrigerator, high pressure vacuum system wire bonder, cumulative 3 months underground laboratory shift |

## Education

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| Period | **September 2012 — July 2016** |
| Degree | **MPhys** |
| University | **University of Southampton** UK |
| | Second Class Honour(Upper Division), £12 000 scholarship tuition fee Graduation thesis: Flavour Composition and Energy Spectrum of Astrophysical Neutrino at IceCube |

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| Period | **October 2016 — March 2020** | |
| Course | **Experimental Physics*** | |
| University | **Osaka University** | Japan |
| | *completion of studies with credits, 3 years 文部科学省 MEXT Scholarship, 6 months research assistant<br>Bolometer development for scintillating crystal at cryogenic temperature, Unsupervised learning for data analysis, dilution refrigerator | |
| Period | **January 2011 — June 2012** | |
| Level | **Advance Level** | |
| Institution | **Tunku Abdul Rahman College(TARUC)** | KL, Malaysia |
| | 3A*1A, full tuition scholarship, pre-university/high school equivalent | |
| Period | **January 2006 — December 2010** | |
| Level | **SPM** | |
| Institution | **SMK Raja Abdullah** | KL, Malaysia |
| | 9A1B, O level equivalent | |

## Personal information

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| **DOB** | 13/07/1993 |
| **Nationality** | Malaysian |
| **Visa status** | 技術・人文知識・国際業務, PR pending |
| **Linkedin** | uk.linkedin.com/pub/ken-keong-lee/9b/18b/885/ |
| **Personal Homepage** | hareyakana.github.io/cv/ |

## Past Achievement

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| **High Achiever Award 2012 by TARC** | |
| **Full merit scholarship for A level studies at TARC** | |
| **National Physics Quiz 2010** | Bronze |
| **National Chemistry Quiz 2010** | merit |
| **Level 2 Certificate in Book-keeping and Accounts** | 2010 |

## Conferences/Articles/etc.

- Phys. Rev. D 103, 092008 - CANDLES Collaboration "Low background measurement in CANDLES-III for studying the neutrino-less double beta decay of $^{48}$Ca"*co-authored*
- International workshop on Revealing the history of the universe with underground particle and nuclear research 2019 Tohoku 2019 - "Development of Scintillating Bolometer for CANDLES"(Poster) *co-authored*
- JPS Autumn 2019 meeting - "Bolometer Development using Neutron Transmutation Doped Ge in CANDLES for the study of Neutrinoless Double Beta decay" *main presenter*
- TAUP 2019 - "Status of $^{48}$Ca double beta decay search and its future prospect in CANDLES" *co-presenter*

## Past research projects

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| **Anomaly search through Unsupervised Machine Learning** | Phd Project |
| **Neutrinoless Double Beta Decay** | Phd Project |
| **Low temperature Bolometer Development** | Phd Project |
| **Dark Matter and IceCube experiment** | MPhys Project |
| **Neutrino Oscillations** | Individual Dissertation |
| **Plasmonics** | Individual Essay |

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## Voluntary Experiences

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| Period | March 2010, April 2011 |
| Place | Ko Bulon and Satun in Thailand |
| | English Camp for under privileged/abused children |

## Past Exchange Involvement

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| Period | 2009 |
| Program | Culture Exchange Program with Kumamoto Gakuen University Fuzoku High School, Japan |

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|---|---|
| Period | 2010 |
| Program | Culture Exchange Program with Osaka Furitsu Minoh High School, Japan |

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