TAN CHIEN HAO

tanchienhao@gmail.com ⬦ https://www.linkedin.com/in/tan-chien-hao-49abb1185/

ACADEMICS

Olympiad
International Physics Olympiad (IPhO) - Silver (2021)
European Physics Olympiad (EuPhO) - Honourable Mention (2020)
Singapore Physics Olympiad (SPhO) - Gold Top in Experiment (2020), Silver (2019)
National Olympiad in Informatics (NOI) - Gold & Top in Secondary School Category (2018, 2019)
Singapore International Math Olympiad (SIMO) Training Team - Junior (2017), Senior (2017)

Leadership
Chairman of Infocomm Club (2018) - NOI Trainer at RI & NUS Deccourse
Prefectorial Board (2018-2019)

Physics Research
2017 (SBSMP) - Wireless Energy Transfer via Resonant Inductive Coupling (Singapore Science and Engineering Fair (SSEF) Participation)
2018 (SMP) - Magnetism in 2D Arrays (SSEF Bronze, Youth Science Conference (YSC) Gold, 3M Best Project, School's Research Education (RE) Gold, Participated in International Science Youth Forum (ISYF), Participated in Kobe Super Science High (SSH) Science Fair)
2019 (DSO) - Tesla Coil Drivers (SSEF Participation)
2020 (SRP) - Topology & Geometry of 3-Band Models (SSEF Gold, Intertional Conference of Young Scientists (ICYS) Silver)

Awards
Lee Kuan Yew Maths & Science Award (2020)
DSTA JC Scholarship
Top in Computer Elective Programme (2017, 2018)

SKILLS

Coding in C++, Python, Java, Javascript, took part in IOI training & CS3233 Competitive Programming Module by Steven Halim
Basic web coding. Some small school and hobby projects.
Teaching algorithms in C++, have experience from NUS December course on CP (teaching sec sch)
Linux: Decently familiar in most things, including git, make, ssh, etc.
3D Modelling on OpenSCAD, Fusion360
PCB design (designed tesla coil driver) in EasyEDA
Basic 3D graphics using C++ opengl

INTERESTS

hardware exploitation
pentesting: participation in some CTFs, CVE-2017-5632
decentralised exchange & smart contract security
theoretical physics (cond-mat, hep-th)
experimental physics (heterodyne interferometry, spectroscopy)
tesla coil (dual resonant (done), qcw (todo))

linux kernel
HAM radio
robotics (modular robots, robotic prosthetics & open sourcing electropermanent magnets)
entrepreneurship
making educational videos: youtube.com/tanchienhao

PERSONAL TRAITS

Quite curious

Very self-driven if passionate about something