David Kurniadi Angdinata

Education

2016 onwards	**MEng Mathematics and Computer Science (Pure Maths and Comp Logic)**, *Imperial College London*, United Kingdom, 80.8% overall. Top course student, Faculty of Engineering Dean's List, Gloucester Research Ltd Prize
2014 to 2015	**Singapore GCE A-level**, *Temasek Junior College*, Singapore. A in Mathematics, Physics, Chemistry, Project Work, and Merit in NUS Modern Physics
2012 to 2013	**Singapore GCE O-level**, *Anderson Secondary School*, Singapore. A in English, Chinese, Mathematics, Additional Mathematics, Physics, Chemistry, and Geography
Until 2011	**Primary/Secondary**, *Pelangi Kasih School*, Jakarta. 4-year school-based full scholarship by Singapore Ministry of Education

Projects

2018 summer	**Research project on elliptic curves**. Investigated curves over different fields and their role in cryptography and existing conjectures.
	Research project on finite projective planes. Proved the existence and uniqueness of general planes and the non-existence or non-uniqueness of certain planes.
2018 spring	**Improvements on *Pintos* operating system in C**. Improved synchronisation with thread schedulers, and implemented system calls for user programs. Group received 81%.
2017 autumn	***WACC* language to Assembly compiler in Haskell**. Parsed syntax/semantics with Alex/Happy, and used state monads for machine code generator. Group received 94%.
	JP Morgan *Code for Good* hackathon. Redesigned elements of Nobel Prize website with a search engine. Front-end with Materialize CSS and back-end with Python.
2017 summer	**MIDI file parser and mechanical music player**. Parsed MIDI music files into Raspberry Pi, played music on glockenspiel through robot arms. Group placed 4th.
2017 spring	**Imperial College *ICHack17* hackathon**. Used Microsoft Face API for Android app in Java. Played suitable music for detected facial emotions.
2016 autumn	**Research project on home robotics**. Explored modern methods of localisation, navigation, recognition, grasping, manipulation of home robots.
	Performed data analysis of **WhatsApp group chats** in Haskell.
2012 onwards	180 ***Project Euler*** problems solved in Java and Haskell.
2009 & 2011	Designed simple product website for ***MiGi glass industry*** in PHP and MySQL.

Activities

2014	Seven-week course on linear algebra, vector calculus, and differential equations.
2013	Bronze in interschool mathematics challenge on an optimisation problem.
	Champion and team award in interschool mathematics and science quiz.
	Distinction in annual Singapore Youth Festival arts competition choir section.
2012	Two distinctions in regional Australian Mathematics Competition.
	Gold and school award in regional SASMO mathematics olympiad.
	Voluntary weekly environmental cleaning in Waterways Watch Society Singapore.

Miscellaneous

Programming	Proficient in Haskell. Experienced in Java, Python, C/C++, PHP/MySQL, LaTeX.
Mathematics	Research interest in commutative algebra, algebraic number theory, algebraic geometry.
Languages	Fluent in English, Mandarin, Hokkien, Indonesian. Familiar with Japanese.