Jakub Michalski

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Open-minded and ambitious student passionate about computer science, interested in finance, machine learning and autonomous vehicles

Education

Imperial College London (Undergraduate): 2021-to date, on track for First-Class Honours
Course: BEng Computing (Computer Systems, Databases, Calculus, Linear Algebra, Programming in Haskell, Kotlin, Java and C, Graphs and Algorithms, Discrete Mathematics, Reasoning and Logic)

Dubai College (GCE Advanced Level): 2019-2021
Computer Science, Further Mathematics, Mathematics and Physics with A* in all subjects

Nord Anglia International School in Dubai (GCSEs): 2017-2019
All 9/A*, including Further Mathematics, Computer Science, Design and Technology, Business Studies

Projects

- Robot that plays UNO: Monte Carlo Search Tree, image processing, self-written neural network
- Imperial Driverless: Formula Student AI. Developing simulations and real-time latency-critical components of an autonomous vehicle involving neural networks and LIDAR, using Python and C++
- ARM11 assembler and emulator group project (four members) developed in C
- Python trading bot running in AWS: technical indicators, fundamental analysis, sentiment analysis
- Social media application for iOS developed using Swift with a Firebase backend
- Visualising sorting and searching algorithms and a visual unit converter (Django, HTML and JavaScript)
- "Breakout" clone: a 2D game developed in OpenGL using C++

Competitions/achievements

- IC Hack 22: Citadel Best Use of Data Award winner, Optiver Optibook challenge 3rd place
- ISMTF Senior Competition in Vienna (2021): 9th individually, 1st as a team
- Research paper published in the JEI – Journal of Emerging Investigators (2021)
- G-Research Coding Challenge (2021): 2nd as a team
- UKMT Senior Mathematical Challenge (2020): Gold certificate (115/125 points)
- Codathon team problem solving competition (2020): 1st place
- GCSE: Early entry Mathematics, 100%, Best in the World award, Further Mathematics 100%

Internships/experience

- Morgan Stanley Spring Insight (2022): lectures and activities on technology at a financial institution
- Discover Citadel (2022): discovering applications of computer science to trading
- Deutsche Bank Spring into Banking (2022): practical use of Google Cloud
- NTT Data, Chennai (2019-2021): practically implementing machine learning algorithms using industry best-practices based on prior teaching, resulting in a research paper published in the JEI
- SAP, Dubai (2019): sales simulation, software quality control and testing
- Head of Mathematics Society (2019-2020): organised a city-wide mathematics competition
- Head of Robotics Club (2020-2021): organising activities for younger year groups
- Al Noor Centre for Children with Special Needs (2019-2020): assisting teachers with lessons
- Whitehats, Dubai (2018): learned HTML and CSS, customer support

Languages

English (bilingual), Polish (native), German (communicative)

Hobbies

Fencing, chess (beginner) rugby (member of the school team), origami