

Edmund Goodman

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EDUCATION

Warwick University <i>MEng Computer Science</i>	Sept. 2020 - June 2024 <i>Coventry, England</i>
The Perse Sixth Form <i>A-levels in Maths (D2, eq. A*), Further Maths (D3, eq. A*/A), Physics (D1, eq. high A*) and Computer Science (A*)</i>	Sept. 2018 - June 2020 <i>Cambridge, England</i>

EXPERIENCE

Software Engineering Intern <i>HUBER+SUHNER Polatis</i>	July 2020 - Sept 2020 <i>Cambridge, England</i>
<ul style="list-style-type: none">Updated a testing harness for fibre optic switches from python2 to python3Refactored the VBA backend of an excel spreadsheet used for corporate planning, created visual representations for the aforementioned planning dataWrote a Java implementation of NETCONF call home (https://tools.ietf.org/html/rfc8071) for the open source ONOS project	
Software Engineering Work Experience <i>Argon Design</i>	July 2017 <i>Cambridge, England</i>
<ul style="list-style-type: none">Refactored and redesigned an information display board, converting a monolithic file into a series of microservices running with a python LAMP server, in order to serve the updated UI	

PROJECTS

Engineering Education Scheme <i>Python, C++</i>	Sept. 2019 - Apr. 2019
<ul style="list-style-type: none">Lead the software aspect of the school "Engineering Education Scheme" entry, building an autonomous tennis ball collector to the help sports teachers - Project link , VideoImplemented first principles image recognition for tennis balls, using CLAHE, median blurs, laplacian transforms, and the Hough circles algorithmWrote search algorithm to find the balls, and interfaced with the drive and flywheel motors to collect themContributed to the hardware aspect, manufacturing parts of the shell, and battery and flywheel mountingsWrote command line and graphical interfaces to remotely control the robot, allowing both manual and automatic modes	
Rouse Research <i>Python</i>	Sept. 2019 - Apr. 2019
<ul style="list-style-type: none">Received a Distinction for a project titled "How effective are machine learning algorithms compared to traditional analytical techniques with respect to play abstract games" Project linkDerived and implemented neural networks from first principles, including using back-propagation to train them to play noughts and crosses optimallyImplemented genetic algorithms to play noughts and crosses, and compared their efficacy to neural networksImplemented tree search algorithms, including minimax with alpha-beta pruning	

ACHIEVEMENTS

Music: Trinity Guildhall Grade 8 Trumpet, ABRSM Grade 7 singing, Pro Corda national chamber music finalist, previous head chorister of Jesus College Choir

Cyber Security: Reached the final round of the Cyber Discovery competition, hence attending two SANS courses, SEC504: "Hacker Tools, Techniques, Exploits, and Incident Handling", and FOR500: "Windows Forensic Analysis"

Gold Crest award, and Gold level industrial cadet: Awarded due to completing the EES project mentioned above

Air Cadet Leadership Course: One of 240 each year to graduate a demanding week long course at RAF Cranwell teaching practical leadership skills, where I learned how to plan an exercise, communicate effectively, and command a team of nine other cadets

TECHNICAL SKILLS

Languages: Python, Java, Haskell, Bash/Zsh, C, VBA, Javascript with jQuery, BASIC, PHP, HTML, CSS, SQL