

# Ray Garner

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## Personal Profile

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I chose to study Computer Science because I find the work of software engineers like John Carmack and Linus Torvalds highly inspiring and also because I find programming exercises my imagination in a unique way. Developing software gives me a similar sense of satisfaction as composing music does, a prolific hobby of mine. Along with composing music, I have enjoyed playing in a variety of musical ensembles for several years now. This experience gave me the opportunity to practice my teamwork skills and creativity to a great extent, which quickly became useful during the group work project in the first year of my degree studies.

## Education and Qualifications

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### University of Nottingham

- **2020-Present** - Studying in 2nd year of Computer Science Bsc. Core modules include software engineering group project, operating systems & concurrency, algorithms & efficiency and I've opted for optional modules in advanced functional programming, C++ programming and AI methods.
- **2019-2020** - Attained a 1st with 87% overall in year 1 of Computer Science Bsc. Core modules included programming & algorithms, maths for computer science, systems & architecture, databases & interfaces and fundamentals of AI.

### Wigston Academy Trust

- **2017-2019** - Achieved A, A, B in A-Level Computer Science, Music Technology and Music
- **2015-2017** - Passed 11 GCSEs with grades A\*-B

### RSL

- **2018** - Passed Grade 8 electric guitar with merit

## Software Tools Experience

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Software development	vim, gcc, gdb, ghc, vscode, Eclipse IDE, JUnit testing, MATLAB, Visual Studio, Chrome dev tools, git, make
Multimedia	Reaper, Cubase, Ardour, ffmpeg, Audacity, Avid Sibelius, Muscore, GIMP, Blender
Network tools	ftp, ssh, Citrix Receiver, VMware Horizon, TeamViewer
Design	Google SketchUp, Circuit Wizard
Languages	C, ARM asm, Java, Haskell, MySQL, JavaScript, PHP, VB.NET, shell script, HTML, CSS, $\text{\LaTeX}$ , Markdown
Operating systems	Arch Linux, Debian Linux, Windows 7 onwards, macOS Sierra onwards

## Software Development Projects

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- **2019-Present** Maintain shell scripts to automate the installation and configuration of Arch Linux to my preferences
- **2020** - Created a shell script wrapper for mpv and ffmpeg to create a multi-track recording tool
- **2020** - Programmed a chess engine in Haskell using an alpha-beta search with a university colleague and later developed a faster version of the program in C
- **2020** - Set up a film database website using HTML, CSS, JavaScript, PHP and MySQL for the coursework in the databases and interfaces module in year one of my degree. I now maintain raygarner.co.uk as a portfolio using skills I learned during that project
- **2020** - Wrote JUnit tests to debug a faulty finance app in the first group work module of my degree and also used git for version control

- **2020** - Utilised the Java GUI library “swing” and object oriented programming techniques to create a Minesweeper game as a university assignment
- **2019** - Completed various assignment exercises to gain experience with C, ARM asm, Java and Haskell during the first year of my degree
- **2018-2019** - Created a primitive chess engine using VB.NET for A-Level Computer Science coursework for the college chess club

## Work Experience

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### **2017-2020 - Perfectcast Ltd**

- Upgraded laptop hardware
- Performed corporate laptop imaging
- Installed a Cisco video conference system
- Set up a Blender renderfarm
- Carried out end-user and network IT support

### **2016-2019 - Wigston Academy Trust**

- Played as the guitarist for the shows Joseph and his amazing Technicolour Dreamcoat, Little Shop of Horrors, Annie and School of Rock
- Recording technician for GCSE Music recitals

### **2019 - The Little Theatre**

- Played as the guitarist for their production of Cats

## Hobbies and Other Experience

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### **Music**

- **2020** - Played as lead guitarist and co-producer in Leicester math-rock band “PE Department”
- **2019-2020** - Performed as lead guitarist in the Wigston College Jazz Band
- **2015-2019** - Performed as lead guitarist in Leicester alt-rock band “The Scrubs”
- **2014** - Sung in the choir in “The Armed man: A mass for Peace” at the Royal Albert Hall
- **2014** - Played guitar in Rhys Chatham’s “A Secret Rose” Birmingham Town Hall performance

### **Chess**

- **2020-Present** - Member of the University of Nottingham Chess Society
- **2019-2020** - Co-head of the Wigston College Chess Club

**References available upon request**