# **Nathan Dunne**

I am a graduate of Computer Science First Class, from The University of Warwick. During my Undergraduate Degree I took an Intercalated Year to work as an full time Software Engineer at Sophos Ltd, as well as a Summer Internship at Arm Ltd. Since graduating I have been working in the Open Source Software division of Arm Ltd. I have a particular interest in Compilers and High Performance Computing, and consider C++ and Python to be my best programming languages.

## Education

Computer Science with Intercalated Year: First Class University of Warwick Dissertation: Just-In-Time Compilation for an Unstructured Mesh DSL	July 2020
Third Year Electives: Compiler Design, Fault-Tolerant Systems, High Performance Computing (Msc)	2020
Intercalated Year: Sophos Ltd (11 months) & Arm Ltd (3 months)	2019
Advanced Level  The City of London Freemen's School (CLFS)  Maths (A*), Computing (A), Physics (A), Electronics (A) [Advanced Subsidiary]	August 2016
General Certificate of Secondary Education  The City of London Freemen's School (CLFS)  11 GCSEs A*-B, 7 at A* including Mathematics, Additional Mathematics and English Language	August 2014

## **Employment**

## **Open Source Software Engineer**

August 2020 - Present

ARM Ltd.

- Rotated between several teams in Open Source Software, for 8 month periods.
- Projects included:
  - Optimising linear algebra routines in C++ and aarch64 assembly for high-performance maths libraries
  - Generating bootable images for autonomous workloads with Yocto
  - Working on an LLVM compiler for an upcoming ARM hardware platform.

### Summer Intern Embedded Software Engineer

June 2019 - August 2019

ARM Ltd.

- Investigated a Google compiler optimisation framework that resulted in greater performance for Chromium users on ARM platforms.

## Placement Year Software Engineer

July 2018 - June 2019

Sophos Plc.

- Investigated customer and internal product issues when code analysis or a higher level of technical understanding was needed, requiring me to learn a number of debugging tools, as well as quickly become familiar with new code bases in .Net, C++ and C for different components.

#### Technical Skills **Programming** Scripting **Parallelism Projects Productivity** C++17**CUDA LLVM** Git Python C OpenMP Linux/UNIX Bash Yocto PowerShell **OpenMPI** Java vim AArch64 gdb Ada

## Volunteering

## Warwick Technology Volunteers

October 2016 - June 2018

Project Leader

- Planned, coordinated and lead sessions for school age students, involving either **Scratch** or **Arduino**, helping them through a set of exercises.
- The exercises we had were several years old, and not challenging enough for advanced students. I revamped the whole set of resources in my time as Project Leader.
- Also advertised the project to fellow uni students, and provided training for new volunteers, as they were not required to have a computing background.

### **Interests**

- Rock Climbing

Indoor Rock Climbing and Bouldering Warwick Climbing Club Member 2016 - 2020

- **Charity Fundraising** (Warwick RAG)

UK 3 Peaks Challenge: Mount Kilimanjaro Trek: Skydive: >£600 for The Meningitis Research Foundation >£3400 for The Meningitis Research Foundation >£400 for Alziemers Research UK

- Powerlifting/Olympic Weightlifting

Warwick Barbell Member 2018 - 2020

- Technical Theatre

Lighting design for productions of *Speed Death of the Radiant Child*, *Cabaret*; Executive Committee member for Warwick Tech Crew 2017-2018.

## References

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