OwenShepherd

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Links

My Website
(written in my own
website generator)
My Github

Languages

Native: English
Fluent: French

Programming

Java
C
Javascript
Rust
Scala
Bash
C++

Have dabbled in:
Haskell
Scheme
Python

Misc.

Regex
LaTeX

About Me

I am a professional software engineer, open-source enthusiast, and Computer Science student at Trinity College Dublin (TCD)

Programming Skills

Competitions
- I participated in NWERC 2016, the Northwestern Europe Regional Contest, my team was the best of the six Irish teams participating
- My team came first of the Irish teams in UKIEPC 2016
- I've also participated in
  - UKIEPC 2015
  - Google HashCode 2016
  - IRLPC 2016
  - Microsoft Coding Competition (@ TCD)
  - Bloomberg Codecon 2015 and 2016 (@ TCD)
  - Workday Hackathon (@ TCD), won third place

Side Projects
- In Javascript, I made a Music Recommendation webapp, and physics engine, found here
- In C, I made an interpreter for the two-dimensional programming language Befunge-93. My interpreter is around three times faster than the reference implementation, and I have yet to find an implementation that out-performs mine at all. My interpreter can be found here
- In Rust, I wrote a Turtle Graphics interpreter that outputs Vector Graphics, and includes two neat demo programs, here
- In Bash I scripted the above to produce this video and this video
- In Javascript, I made a client-side website generator, found here, with url router plugin here
- In Scala, I made a Brainfuck interpreter that can be found here
- In Bash, I wrote a script that (as non-root) detects new logins to a Unix system, and sends the user a message of your choice
- in C#, I wrote a reverse-polish boolean logic evaluator, found here
- In a three-hour hackathon, two of my friends and I made this awful terminal game, which I'm far too proud of
- In Java/C/Rust/others, I write my college assignments, found here
- For a list of languages I've used, see the sidebar to the left, for all of my projects, see my Github

Experience

2016 - Present   **Software Engineering Intern**   Arista Networks, Dublin

I am currently working part-time at Arista Networks, in addition to my studies at TCD. I work on the platform team. My team and I write a lot of low-level, extremely optimised C, touching our custom OS kernel, userspace and everything in between. At the moment, I'm dissecting some x86 assembly code in glibc, in order to apply very hardware-specific optimisations to one of our projects

Summer 2016   **Software Engineering Intern**   Workday, Dublin

I interned at Workday over summer on the Data Services team. For my main project I used modern web technologies to develop an internal navigation system that determined a device's position by the strengths of wifi signals.

Technologies used:

- React, React-Router, JSX, etc.
- Ionic (Cordova + AngularJS)
- HTML5 Canvas
- Leaflet + GeoJSON
- Webpack
- ECMAscript6 (transpiled down to ES5 using babel)

When I'd finished this project I wrote Scala code for my team

2015 - present   **Netsoc Sysadmin**   Trinity College Dublin

I am a sysadmin (root user) of Trinity College Dublin's Netsoc servers. We offer a range of services, including hosting hundreds of websites for our members and other societies, IRC, emails, etc.

2016 - present   **Netsoc Public Relations Officer**   Trinity College Dublin

I am the PRO for Trinity College Dublin Netsoc. This involves liaising with large companies, the college, our 300 members, and other societies. It's my job to procure sponsorship, and to design and oversee the distribution of all printed and online material.

Education

2015 - present   **Computer Science Student**   Trinity College Dublin

I am currently in second year of Integrated Computer Science at Trinity College Dublin.

I have taken these modules:

- Algorithms and Data Structures
- Systems Programming
- Telecommunications I, II
- Information Management
- Discrete Mathematics
- Programming (Java)
- Computing (ARM Assembly)
- Mathematics
- Digital Logic Design
- Electrotechnology
- Computers And Society
- Central Problems in Philosophy

First year exam grade (overall): 1st