

# Alexander WILSON

## PERSONAL DATA

---

PHONE: 07729 346947  
EMAIL: [acwilson96@gmail.com](mailto:acwilson96@gmail.com)  
MY WEBPAGE: [acwilson96.github.io](http://acwilson96.github.io) - Hosts my most up to date **general CV**.  
MY GITHUB: [github.com/acwilson96](https://github.com/acwilson96)

## EDUCATION

---

SEPT 2014 - JULY 2018    **BSc in COMPUTER SCIENCE, University of Edinburgh**  
*Relevant Classes Include:*  
**Compiling Techniques:** Created a compiler for a subset of C, also used LLVM to re-create a dead-code-elimination using liveness analysis.  
**Computer Architecture:** Used Intel PIN Tool to implement a branch predictor and cache prefetching algorithms.  
**Operating Systems:** Implemented a page-based memory allocator, and a file system driver for the University of Edinburgh InfOS.  
**Elements of Programming Languages:** Created an Object Oriented programming language using Scala, that implements sub-typing and classes.

AUG 2007 - JUNE 2014    **George Watson's College**  
SQA Advanced Higher Computing: A  
SQA Advanced Higher Maths: B  
Awarded the George Watson's "Blair Robertson" prize in Computing Studies.

## WORK EXPERIENCE

---

JUN 2017 -SEPT 2017    Software Engineer Intern at KAL, Edinburgh  
*Worked using C#, C++, and on some internal tools.*  
My work consisted of using existing software, to create new applications, and create proof of concepts for improving existing products. Presented my work to the entire company to create open discussion.

JUL 2015 -SEPT 2016    Kitchen Porter at ROYAL BLIND: BRAESIDE HOUSE, Edinburgh  
*Assisted in cleaning and food preparation.*  
Responsibilities include making sure that the kitchen and food preparation areas are kept clean to a very high standard. I also aided my colleagues in food preparation.

NOV 2014    Freelance work at ACCA, Glasgow  
*Dismantled high end industrial computer hardware.*  
My task was to dismantle company machines such as laptops and desktops so that hardware such as Hard Drives containing company data could be disposed of responsibly.

OCT 2013    Work Experience at ACCA, London  
*Desktop Support*  
My work experience included auditing PC numbers for asset reconciliation, checking network ports for patch panel maintenance, and setting up conference rooms with microphones and webcam equipment for use with Microsoft Lync.

## SKILLS

---

Languages: JAVA, C#, C, C++, PYTHON, HTML, CSS, JAVASCRIPT, x86, MIPS, BASH, LATEX, HASKELL, SQL, NOSQL, MATLAB, LIVECODE, PHP

Concepts/Technologies: OBJECT-ORIENTED DESIGN, MVC, UNIX, LINUX, MACOS, WINDOWS, .NET, GIT, LLVM, CMAKE, HADOOP, NODEJS, SAILSJS, REACTJS, REACT-NATIVE, MYSQL, MONGODB, ELECTRON(LEARNING)

## PROJECTS

---

**UG4 HONOURS PROJECT** **Microbenchmarking Intel Knights Landing**  
Involves writing c++ with inline x86 to evaluate the latencies and bandwidths of the different memory components of the multichip processor.

**PROGSOC WEBSITE** **University of Edinburgh Programming Society Website**  
Using ReactJS to create a website for the University of Edinburgh Programming Society that shows info about the society and includes learning resources.

**UNI LARGE PRACTICAL** **Bin Lorry Simulator**  
Used Java to write a text-based simulator for bin lorries collecting garbage. Involved exploring graph traversal algorithms and different distributions to model garbage disposal in bins.

**UNET** **Instant Messaging Application**  
POC using ReactJS to create a single page application using websockets for instant messaging. Backend written in SailsJS(MVS NodeJS framework).

**FLAT ROTA** **Digital Rota for Communal Resources**  
POC using react-native to create an iOS application for creating an anonymous rota for communal resources in my university flat, for example, dish soap or tin foil.

**SUP SCRIPT** **Automatic Purchasing on Webstore**  
A FireFox extension that uses JavaScript to automate actions on supremenewyork.com/shop in order to check out items quickly. Includes some minor work on spoofing/bypassing Google Recaptcha.

**RENT REMINDER** **Sends automated emails regarding rent.**  
Small NodeJS script that automatically sends emails to me and my flatmates to remind us to pay rent at the end of the month. Deployed on my Raspberry Pi.