

Dr. Ahmed Abuelgasim

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Profile

I am a freelance, front-end web developer with over three years of experience in creating mobile-first, responsive websites and interactive web apps, particularly ones that communicate with developer APIs. In my work I aim to write fast, efficient code and due to my perceptive nature I have a high attention to detail that enables me to develop 'pixel perfect', cross-browser layouts. I am a creative person who enjoys implementing unique features, taking on demanding challenges and learning new skills.

Before my coding career I was a cleanroom process engineer with eight years of semiconductor fabrication experience, working at the University of Southampton. It was there that I completed PhD and master's degrees in electronic engineering from which I gained the confidence and ability to quickly understand unfamiliar and challenging topics. This quality enabled me to teach myself programming in my spare time after realising a profound passion for creation through coding. Eventually I freelanced part-time developing websites to enhance my skills until I possessed the confidence to quit my job and pursue a full-time career in web and software development.

Software Skills

Expert in **HTML5, CSS3, SASS, Javascript, JQuery, Bootstrap** and **Markdown**.
Extensive experience interacting with **APIs** using **AJAX**.
Experienced with **PHP, WordPress, AngularJS** and **Photoshop**.
Confident in the use of **Git, GitHub** and **Bash**.

Personal Skills

Exceptional problem-solving skills with a well-structured and logic-based approach.
Extremely adaptable and capable of quickly understanding unfamiliar topics.
Highly effective communication skills and ability to easily explain complex topics to non-technical people.
Excellent organisation, multitasking, leadership and project management skills.

Interests and Activities

I greatly enjoy software development and during my days as an engineer I spent my spare time teaching myself to code. Despite being a fully capable front-end developer I frequently learn, practice and keep up to date with new techniques, frameworks and languages, and am hence currently learning AngularJS with the intention to learn Angular 4. Code is not the only thing I enjoy writing, however, as I also pen short stories and screenplays and am very interested in the art of film-making.

Travelling has always been another interest of mine and I have visited and lived in many cities around the world, experiencing a diversity of cultures. From my travels I have learned to be adaptable and resourceful, and have developed great cultural awareness.

At university I played an active role in organising social and sporting events. During my second year I held the position of founding vice president of the school's first official student society. In this role I learned team leading and organisation strategies, as well as the importance of diplomacy in team situations.

Work Experience

Oct. 2017 – Present: Front-end Developer, Potato, London

I have recently started work for **Potato** as a front-end developer based in their London offices.

Apr. 2016 – Oct. 2017: Freelance Front-end Web Developer

As a freelance web developer I created cross-browser, responsive websites from layouts that I designed and mocked-up using sketches, wire-framing and Photoshop, or from Photoshop design files provided by clients. I coded the sites using HTML5, CSS3, SASS, JQuery, Javascript and Bootstrap, and for the majority of my clients I create a custom WordPress theme using PHP to allow for content management. The code for some of my projects can be seen on my GitHub page at github.com/hungryphilomath and my [website](#) contains a showcase of recent projects including:

Web app of movie and actor trivia game **6 Degrees of Kevin Bacon**.
AngularJS and WordPress website for fashion brand **Karkadé**.
WordPress portfolio website for comedian and photographer **Yumna Mohamed**.
WordPress website for property development firm **Reniam Ltd**.

WordPress website for mining supplies and equipment company **Rowfer Ltd.**

Oct. 2012 – Nov. 2016: Cleanroom Process Integration Engineer, ECS Partners, Southampton

As cleanroom process integration engineer for the commercial unit of the **Southampton Nanofabrication Centre** I applied fabrication experience gained during my PhD to commercial projects. Responsibilities and achievements included:

- Completed numerous concurrent projects including one lasting over 18 months.
- Implemented new ideas and methods to decrease processing time thereby improving efficiency and yield.
- Managed and supervised junior engineers, delegating tasks to them based on skill and experience levels.
- Developed great communication skills from liaising with clients and explaining technical processes to them.
- Enhanced time and project management skills by leading projects and managing junior engineers.

Nov. 2012 – Aug. 2015: Cleanroom Process Engineer (Contractor), PhotonStar LED

Contracted multiple times by start-up designer and manufacturer of LED lighting solutions **PhotonStar LED** to complete various projects. Most projects involved optimising tool process conditions using the tool's custom programming language and ecosystem. Responsibilities and achievements included:

- Installation, programming and testing of new LED jetting robot and training of operators.
- Optimised operation of automated wire bonder re-programming it for better performance.
- Improved capacity to understand new topics by creating recipes in bespoke programming languages.
- Learned to be efficient and resourceful by adhering to the start-up's tight schedule and budget.

Mar. 2009 – Apr. 2014: Measurements Lab Tutor, University of Southampton

Trained master's degree students in the use of equipment to measure capacitance as part of the course requirements. Duties and achievements included:

- Scheduled and allocated general training and measurement sessions for each group.
- Designed the experiment and fabricated capacitors in-house.
- Improved organisation, planning, training and project management skills through leading the project.

Education

Nov. 2008 – Jun. 2013: PhD Electronic Engineering, University of Southampton

Thesis: '*High Resistivity Czochralski-Silicon Using Deep Level Dopant Compensation For RF Passive Devices*'. For my PhD I increased the resistivity of silicon through deep-level doping compensation. Coplanar waveguides and spiral inductors I designed and fabricated on the material exhibited enhanced RF performance. Skills developed and achievements include:

- Excellent research and analytical skills.
- Exceptional ability in quickly learning unfamiliar topics.
- Confidence in public speaking after presenting work at many conferences.
- Created many recipes and completed initial qualification of numerous cleanroom processing tools.

Oct. 2003 – Jun. 2007: MEng Electronic Engineering (First Class), University of Southampton

Courses included: Software Engineering, C Programming, Computer Engineering, Digital Systems Design, Digital IC Design, Semiconductor Devices, Nanoelectronics and Management. As leader of the master's group project I oversaw the implementation of image-processing, MATLAB algorithms to analyse videos of neural-activity of bees exposed to different scents. Skills developed include:

- Great understanding of the basic principles of software development.
- Leadership, team building and motivational skills from leading the group project.

Sep. 2001 – Jun. 2003: A-Levels, Bilborough College, Nottingham

Computing A, Mathematics A, Further Mathematics A and Electronics A.

Sep. 1999 – Jun. 2001: International GCSE's, Unity High School, Sudan

Computing A, Maths A, Additional Maths A, Physics A*, Chemistry A*, Biology A*, English A*, Arabic B.