Eoin Kavanagh

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Summary

Electronic and computer engineering graduate. Graduated with a 2.1 honours degree and majored in the Internet of Things. I am extremely hard working and believe in leaving no stone unturned. I have a deep passion for both software and hardware development. I am looking to a pursue a career where I can use the skills and knowledge of both hardware and software to design, develop and solve new tasks while continuing to learn new skills.

Technical Profile

- Programming Languages & Principles: Java, C, C++, VHDL, SQL, Algorithms, Data Structures, JUnit
- Web Development: HTML, CSS, JavaScript, Java Servlets & JSPs, Ajax, jQuery, Tomcat
- Operating Systems: Linux
- Networking Knowledge: Networking protocols, Wireless networks, Socket programming, MQTT, GPON, Ultra Wide-Band
- Hardware: Raspberry Pi, Arduino, Decawave DWM1001, TI MSP432

Education

BEng in Electronic and Computer| 2015 – 2020 | Dublin City University

- 2.1 Honours degree
- Some of the modules I have studied include object oriented programming, embedded systems, data structures and algorithms, operating systems, computer architecture and HDL, wireless and mobile communications, web development and bioelectronics.
- Evaluated Ultra-Wideband technology and platforms through a self-built geofencing application as part of my final year project.

Leaving Certificate | 2009 – 2015 | St. Declan's College, Cabra

- Achieved 475 points
- Biology - B1, Maths - B2, Art - B2, Irish - B2, Physics - B3, English - C2, German - C2

Experience

Workshop Technician | Cardiac Services | August 2020 – Present

- Disassembling, diagnosing and repairing faulty medical devices.
- Inspecting, testing and loading configurations on medical devices before they are shipped out.

Telecoms Engineering Intern | Siro | April 2019 – September 2019

- One of two lead engineers involved in a full network security upgrade. Involved setting up security protocols on both device and client sides of the network by remotely accessing the devices and rolling out the upgrades.
- Collected and analysed network usage data to be used to plan future network upgrades.
- Carried out cost analysis for connecting potential new customers and businesses.

Shop Assistant | The Maxol Group | January 2018 – December 2018

- Responsible for opening and closing the shop, handling cash, balancing the till, checking deliveries, restocking, serving customers and ensuring a clean and safe environment.

Projects

- **Final Year Project**. Created a geo-fencing application with an Ultra-wide band platform. Tested the accuracy, reliability and functionality of the system under different use cases. Built using Java, C and a MQTT server.
- **Library Website**. Web development college project that facilitated login, account creation and selecting books to "loan". Business logic built using JSPs and Java Servlets, SQL with Oracle JDBS for communication with database and UI/UX implemented with HTML, CSS and JavaScript.
- **Client/Server Java App**. Application allowed threaded communication between a group of Raspberry Pis and a single server. Each Pi sent custom Java object containing CPU temp along with metadata. Data was graphed on server side indicating rolling max and min.
- **Path-finding Algorithm.** Designed and implement my own pathfinding algorithm using Java to find and map the shortest route between two random points on a map. Received a first-class honours for the project.
- **Electrocardiogram.** Designed and built a bio amplifier to capture biopotential signals of the heart in a standard lead configuration. The amplifier was built using an AD620 amplifier and interfaced to an MSP432 microcontroller that carried out signal processing and uploaded the data to the cloud.
- **Crypto processor.** Built a 16-bit crypto processor using VHDL capable of substitution, permutation, addition and multiplication. The processor included both combinational and sequential logic.

Soft Skills

- **Communication:** Partook in numerous group-based projects throughout university studies, and inspired team members to collaborate in an efficient manner, resulting in obtaining excellent grades for the group-based modules.
- **Leadership:** Lead a team of 4 that started a mock business which involved designing and developing a product, building a business and marketing plan, and presenting to several judges in which our team received a first class honours.
- **Time management:** I plan out my weekly schedule every Sunday in order to stay on top of all college work, assignments and deadlines while still maintaining a healthy and balanced lifestyle.
- **Problem Solving:** Able to deal with problems quickly and efficiently by stepping back, analysing the problem and coming up with a solution before attempting to resolve the issue.
- **Dedication:** Completed both bronze and silver Gaisce awards. I always try to finish whatever task has been set for me and never cut anything short.

Achievements & Interests

- Active runner and gym goer. Take part in the annual Dublin half marathon.
- Build and design 3D models of planes and cars.
- Game Development with Unity
- Current class rep for final college year.
- Led of a transition year mini company which finished 3rd in the Leinster finals of Student Enterprise Awards 2013 with recognition for outstanding business report and presentation.
- Selected as a school prefect and member of the student council in my secondary school.
- St. Declan's Zambia Immersion project. Involved fundraising and travelling to Kasama in Zambia where we would help to build schools, teach computer skills and teach maths to young children and adults.

References

- Jeff Corrigan | Principle Network Engineer at Siro | +353 (87) 790 9546
- Second reference available at request