# **David Kong**

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## **PROFESSIONAL PROFILE**

4<sup>th</sup> Year Electronic and Computer Engineering student and class representative. Interested in computer hardware, processor architecture and digital logic. Driven and obsessive when focused on a task, paired with a curiousness for new technologies and methods.

## **EDUCATION**

BE (Honours) Electronic & Computer Engineering, University of Galway

BE Final Grade:	% First Class Honours
Fourth Year:	% First Class Honours - Chipright Prize
Third Year:	70% First Class Honours - Valeo Prize for Best 3rd Year Project
Second Year:	81.25% First Class Honours – University Scholar
First Year:	83.75% First Class Honours – University Scholar

Leaving Certificate, St. Joseph's Patrician College, Galway - 544 points (4.3 GPA), top 2.2%.

## PROJECTS

#### ESP32 Business Card with NFC – Solo Hobbyist Project

Fully programmable ESP32 Arduino PCB business card with custom designed NFC antenna. Designed in KiCad and manufactured by JLCPCB.

#### Infrared HID Pointer System for Projectors – 2 Person

Use of ESP32 and ESP8266 microprocessors to implement a Bluetooth HID system that tracks an infrared laser. Fully custom hardware and software using C and C++. Winner of the Valeo Prize for Best 3<sup>rd</sup> Year Project 2022-2023 in Electronic and Computer Engineering.

#### G.E.E.C. Team Power Electronics – 30 Person

Development and repairs of the Galway Energy Efficient Car power electronics – motor controller and battery system. Travelled with 14-person team to Nogaro, France to compete in the Shell Ecomarathon 2023 and 2024, coming 13<sup>th</sup> and 18<sup>th</sup> respectively in the Battery Electric Category.

## SKILLS

**Teamwork and Communication:** Excellent teamwork and communication practiced through working with worldwide project teams during RTL development, including teams from Ireland, the USA, UK and India.

**Problem Solving:** Approaches problems from every angle, from software methods to hardware design. Honed through many projects and hobbies.

**3D-Printing and Design:** Proficient in FDM 3D-Printing and 3D Design using Autodesk Fusion 360 and Solidworks.

**Programming:** Experienced in programming in Java and VHDL in VSCode and Xilinx Vivado. Industry experience in Verilog using Cadence tools. Additional experience in C, C++, SystemC, Go and Python.

## AWARDS/ACHIEVEMENTS

University of Galway University Scholar 2020-2021 University of Galway University Scholar 2021-2022 Valeo Prize for Best 3<sup>rd</sup> Year Project 2022-2023 in Electronic and Computer Engineering Chipright Prize in Electronic Chip Design and Technology 2023-2024

### **INTERESTS/HOBBIES**

Soldering and board prototyping. Computer, CPU and controller architecture and internal design. 3D-Printing. FPGAs for daily use. Centralised computing, lightweight and folding displays. Badminton.

## WORK EXPERIENCE

#### January 2024 – August 2024 – SSG Intern, Cadence Design Systems, Spiddal, Galway

- RTL IP development and TLM modelling for Cadence DDR Controller.
- Adhered to project specification and project planning timelines.
- Followed strict coding guidelines.
- Verilog, SystemVerilog, C++, SystemC, Python and TCL development.

#### February 2022 – June 2023 - Customer Assistant, Lidl Ireland, Knocknacarra, Galway

- Provided patient and friendly service to thousands of customers daily.
- Integrated and bonded into a fast-paced and highly flexible team of 3 to 4 people.
- Managed a wide range of tasks in a wide range of unforeseeable circumstances.
- Strived to complete every task correctly and on time, as a team.

#### July 2021 – September 2021 – Warehouse Operative, Autofulfil Limited, Oranmore, Galway

- Picking off shelves and safely packing schoolbooks for eCommerce website delivery.
- Exceeded quotas and eased high volumes during August, where orders increase.

#### REFEREES

Peter King – Design Engineering Architect at Cadence Design Systems, Galway kpeter@cadence.com

- Dr. Fearghal Morgan Lecturer/Researcher at University of Galway fearghal.morgan@universityofgalway.ie
- Dr. John Breslin Personal Professor at University of Galway john.breslin@universityofgalway.ie