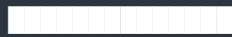
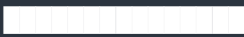


Niels Hokke

Freelancer & CEO/Co-founder of Zero Energy Development B.V.

Pushing the boundaries of technology by building innovative prototypes



linkedin.com/in/niels-hokke



Github.com/NielsHokke

WORK EXPERIENCE

CEO/Co-founder

09/2020 – Current

Zero Energy Development BV, Delft

Co-founded a high-tech startup which pushes the limits of ultra-low-power technologies building batteryless and wireless sensing devices to help enterprises realize the potential of the next generation of IoT

Freelancer

09/2023

Healthy Feeling BV, Venlo

Implemented the logic off a smart fridge/vending machine which uses weight sensors to detect which items to charge the user for. The logic communicates with the weights sensors and updates its findings to a backend

Freelancer

08/2017 – 11/2019

Cleaning Consultancy Delft BV, Delft

Developed and validated an ARM based Bluetooth prototype for high precision industrial color measurements used for washing-machine certification

Freelancer

03/2015 – 07/2017

Physee BV, Delft

Designed multiple iterations of a PCB sub-system used for window integratable solar pannels

Electrical Engineer

03/2015 – 04/2017

Kinergizer BV, YES-Delft, Delft

Redesigned and optimized a power management for an energy harvesting application and designed a logging device that captures the output of the energy harvester in multiple scenarios

Intern

03/2015 – 04/2017

Sogeti Nederland, Amersfoort

Contributed to an ARM & FPGA based smart meter test-bench by writing communication software in C++ for the P0 port

Intern

11/2014 – 01/2015

Rexnord FlatTop, 's-Gravenzande

Industry 4.0 project were three silos full of granulate were connected to the internet to visualize the contents company wide

EDUCATION

Embedded Systems (MSc)

09/2016 – 07/2020

Technical University Delft

Including premaster. Thesis topic in Event Based Energy Harvesting Medium Access Control, resulting in scientific publication [\[1\]](#). Extra courses in: Security and Cryptography, Sustainable Innovation in Practice, and Network Security

Electrical Engineering (BSc)

09/2012 – 06/2016

The Hague University of Applied Sciences, Delft

Minor in robots and vision, extended project work in combination with a veterinarian to develop a smart litter box, attended various hackathons

SKILLS

Creative problem solving

Embedded software

Git

C++

Interdisciplinary teamwork

PCB/Circuit design

Wireless

IoT

Energy harvesting

Bluetooth

ARM & AVR

Python

Communication

LoRa

AWARDS & CERTIFICATES

Winner of Airbus Fly Your Ideas [\[1\]](#) 06/2019

Beating 269 other student teams from around the world, together with three team members from TU-Delft, designed an energy harvesting based IOT solution for the aerospace domain

Blockchain Technology Certificate 10/2018

Successfully completed the following advanced computer science master courses: Security and Cryptography, Distributed Algorithms, and Blockchain Engineering at TU-Delft

Socrates Honours Society [\[1\]](#)

06/2012

Finished secondary education with a final grade higher than a 7.5

VOLUNTEER EXPERIENCE

DORPeling [\[1\]](#)

06/2016 & 06/2018

DORP, Welcome to the village

Extended the functionality of a large art installation by programming a visual to audio translation

For ten days worked in an interdisciplinary team to solve the food scarcity problem by marketing insect fries

Rugby Trainer

01/2010 - 12/2011

Rugby club the Hookers

Trained 4/5-year-old children in the game of rugby

PERSONAL PROJECTS

Smart front door

Raspberry Pi based, allowing remote access, access through NFC-tag, doorbell detection and a camera live feed of front door traffic

Smart-meter Wi-Fi interface

Designed and build a custom ESP-32 based smart-meter P0 interface allowing a home system to track energy consumption

BEN widget

Android widget showing mobile usage data collected using a web-scraper on the android home screen

Smart mirror

Integrated a screen into a mirror showing agenda, daily updates, smart home overview, and more