

I am a creative technologist building digital and physical products, and currently finishing my Doctoral Thesis in Computer Science. Originally taught as an interactive product and experience designer, I currently have 5+ years part-time experience in software development for bespoke products and services. I involve potential users in the exploration of novel approaches to digital services. I am a social person with a creative and analytical mindset, learning from and adapting existing problems and solutions to create services along the developer stack. I am self-directed and resourceful, and eager to work in a team on high quality deliverables for meeting stakeholder expectations.

In my free time, I experiment with designing software, hardware and product design, and enjoy woodworking, being outdoors and boardgames.

Contact me on

[Github](#)

[LinkedIn](#)

[Email](#)



Experience

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- NOW** [🔗](#) **Researcher and Digital Product Developer** - Computer Science, Newcastle University, Newcastle, UK
 10/17 Doctoral researcher on novel family-focused interfaces for internet-connected services. *I started at Northumbria (2017) and transferred with the job to Newcastle (2019).*
- Designed and developed a physical data visualisations IoT toolkit ([Domestic Widgets](#)).
 - Iteratively developed a natural language processing interface, embedded hardware and bespoke web services for data management and access.
 - Created a Google Sheets extension ([Phone Grown](#)) for ambient information displays in conjunction with IFTTT.com.
 - Designed an accompanying Google Sheet template and written [tutorial](#) supporting a do-it-yourself, scalable and open-source dissemination of this tool.
 - Through the in-situ deployment of these tools, observation and interviews I qualitatively study how domestic connected devices can be better designed with families in mind, and for which potential shared purposes.
- 09/20** **Computer Science Teaching Assistant** - School of Computing, Newcastle University, UK
 02/18 Coaching MSc Dissertations and teaching in MSc courses such as:
- Advanced Programming,
 - Information Systems (Interaction Design and Databases),
 - Programming and Data Structures,
 - Object-Oriented Programming (BSc course at Northumbria University).
- 02/18** [🔗](#) **Motion Graphics Designer** - Studio David Verweij, Eindhoven, NL
 03/15 Developed various motion graphics (animations) for clients such as Smart-Homes.nl, Eindhoven University of Technology (SkillsLab, School of Education) and Media Markt NL.
- 08/16** **Industrial Design Communication Assistant & Student Advisor** - Eindhoven University, NL
 10/14
- Advising role within the Department Board (weekly meetings) as a student representative.
 - Departmental policy and website support, and speaker for study orientation evenings.
 - Coaching secondary school pupils in their design and innovation projects.
- 08/16** [🔗](#) **Co-owner and STEM Course developer** - BétaBoomen, Eindhoven, NL
 05/14
- Developed extra-curricular STEM courses (e.g. electronics, programming) for, and managed relations with, pre-university schools.
 - Delivered, and recruited other university students to deliver, these courses at pre-university schools throughout the region. Pupil ages ranged from 12 - 17.

Skills

Software Development - Full stack developer, main experience in JavaScript and the Cloud Computing.

- Programming languages such as HTML, (S)CSS, JavaScript & Node.js, Java (inc. for Android and Android Wear), C++ (hardware), Python, SQL and *currently following courses on Vue.js, React.js and Docker*.
- Cloud Computing using the Google Cloud Platform (GCP), including RESTful APIs, utilising (no)SQL database and ensuring data security.
- Sound understanding of data structures (i.e. OOP), experienced in source and version control (Git), understanding of (unit)testing and version control, familiar with containerisation (Docker), and comfortable in shell script and various IDEs.




(Product) Design - Generalist, from paper to functional prototype.

- UI/UX design, originating from illustrations and motion graphics. Comfortably navigates the Adobe Suite, including Adobe XD, Illustrator and Photoshop. Applied UX design skills through development of various visual (screen based), audible (voice assistant) and physical (gestural) interfaces.
- Product development, shaping form through paper prototyping, cardboard modelling, 3D printing and woodworking. Creating function through off-the-shelf electronics (Arduino/Raspberry Pi) and bespoke hardware (circuit design).


Research and Analysis - Applied researcher experienced in Research through Design

Literature and user research for qualitative, quantitative and data analysis. Experienced in tools such as SPSS, NVivo, and utilising Python scripts (D3.js, pandas, plotly) for data analysis.

Latest Work

- 2020  **Phone Grown** - A web-app to transform unused smartphones into smart displays that visualise data sources.
A Google App Script (.js) based UI, embedded in a Google Sheets template, utilizes pre-built IFTTT.com triggers which send visualisations to a website aimed at legacy mobile phone browsers.
- 2018  **Domestic Widgets** - A toolkit to create, customise and control physical data visualisations through a voice-assistant.
Natural language processing allows voice-based configuration and control of embedded hardware within 'Widgets', who listen and physicalise instructions stored in the database.
- 2017  **WaveTrace** - A motion-mimicking interaction technique controlling various smart-home products.
Utilizing native Android watch sensing capabilities, correlations with moving 'buttons' in prototype UIs (Java) are computed to establish touchless interaction.

Education

- NOW  **PhD in Human-Computer Interaction** - Open Lab, School of Computing, Newcastle University, Newcastle, UK
10/17 Thesis on Family-focused design for data-driven products. Initially at Northumbria University (10/17 - 07/19)
- 07/17 **MSc in Human Computer Interaction** - Department of Industrial Design, Eindhoven University, NL
09/15 Graduated with a 9 (out of 10).
- 07/15 **BSc in Industrial Design** - Department of Industrial Design, Eindhoven University, NL
09/10 Specialised in supportive technologies for education.
- 02/15 **Minor Science Education and Communication** - Eindhoven School of Education, Eindhoven University, NL
02/14 Received a formal teaching qualification for physics for secondary education in the Netherlands

Management and Volunteering

- NOW  **Web Co-chair** - ACM SIGCHI CHI Steering Committee
2018
- 07/20  **Assistant to the General Conference Chairs & Design Chair** -
10/18 ACM SIGCHI CHI Conference 2020, Hawaii, USA
- 2019  **Design Chair** - ACM SIGCHI CHIPLAY Conference, Spain
2018
- 12/15 **Student Representative for the Department Council** - Industrial
09/12 Design, Eindhoven University, NL
- 11/13  **Vice-Chairman & Commissioner of Education** - Study
09/12 Association Industrial Design, Eindhoven, NL
Full-time representation of Industrial Design students in multiple bodies throughout the University.