Nicholas Bentley

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PROFESSIONAL SUMMARY

I am currently a PhD student working towards a thesis focused on the intersections of Human-Computer Interaction and Digital Fabrication. Prior to this I worked as a full stack software developer for 4 years in the construction industry. I have specific interests in Interface Design, UX, Accessibility, and Digital Fabrication processes. Being neuro-diverse and chronically disabled, I also bring lived experience of accessibility needs, and knowledge of the importance of listening to diverse groups of end users. In the roles that I have held these interests and conditions have fueled my actions and advocacy for progress and accessibility within teams and projects.

SKILLS & PROFICIENCIES

I am proficient with several programming languages and tools, including design tools and fabrication techniques, and am driven to approach problems from multiple angles. The bulk of my software development experience lies with **C#, TypeScript/HTML5 (nodejs, Angular, Nuxt), Docker** and **Azure**, though I have varying degrees of experience with a broad range of other tools and am confident in my ability to transfer and acquire skills and rapidly adapt to new environments. With regards to fabrication, I am most comfortable with design tools such as **Fusion 360** and processes such as **FFF** and **SLA** 3D printing, but have knowledge and experience of other workflows. I have a particular interest in **User Experience** and **Interfaces** both physical and on-screen; I have taken leading roles in these areas, including rapid iteration of prototypes and undertaking research tasks to tackle novel problems - processing, interpreting and presenting the resulting data, and using that to inform future development, as part of a team as well as an individual and as a team lead.

EDUCATION

August 2022 - Current	**University of Birmingham - PhD Computer Science** I am currently pursuing a Human-Computer Interaction PhD. Specifically, the thesis aims to investigate how the functionality of digital fabrication techniques might be extended to allow a greater breadth of design space within Human-Computer Interaction.
2014 - 2018	**University of Birmingham - MSci Computer Science - 1st Class Hons.** My degree covered a wide variety of topics, but a specific area of interest became interface design. My final year project comprised a study investigating factors affecting the efficacy of a variety of on-screen interfaces in combination with novel input devices, including the creation of a full stack platform for gathering and processing data and running of the study itself.

PROFESSIONAL EXPERIENCE

August 2022 - June 2024	**University of Birmingham - Teaching Assistant** During the first two years of my PhD study, I worked as a Teaching Assistant on two final-year/masters level modules - Human-Computer Interaction and Research Topics in HCI. I assisted with logistics, helped design aspects of the modules, and provided assistance to large groups of students. I also took on substantial marking workloads and assisted in conflict resolution procedures between students, as well as collaborated with students for their theses.
August 2018 - July 2022	**MiTek Industries Ltd. - Software Developer** During my time at Mitek I worked on multiple projects, including legacy CAD software for the design and fabrication of roof trusses, a small engineering webapp for the design of checmical & mechanical anchors, a larger project & fulfillment management platform, and the integrations between those projects. I have worked in a variety of teams both local and worldwide, and tackled a variety of challenges including research, design, and disseminating skills and ideas throughout teams through documentation and by running workshops.
Mid 2016	**Xiphos Research Ltd. - Penetration Testing Internship** During this internship I had hands-on experience with penetration testing, and a large degree of freedom as to my approach. This gave me a good understanding of common vulnerabilities, where they come from, and how to prevent them. It also helped me develop an appreciation for clean, performant code, as well as the value of performance profiling and resolving techical debt.

References are available on request.