

# Nicholas Bentley

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## PROFESSIONAL SUMMARY

Software Developer and Human-Computer Interaction Researcher working towards a thesis focused on the intersections of HCI and Digital Fabrication. Previously, I worked as a full-stack software developer for 4 years in the construction industry, where I worked to maintain and iterate industry critical CAD applications and develop multiple webapp projects from concept to delivery. I have specific interests in **Interface Design, UX, Accessibility, Optimisation, and Automation**. These interests have directed my focus within teams and projects; helping me to contribute to the creation of robust, maintainable products with high end-user satisfaction, backed by strong, cohesive teams.

## SKILLS & PROFICIENCIES

I have experience with a broad range of tools, technologies, and workflows. I have worked both solo and within teams using these skills, and have taken leading roles on a number of projects and features incorporating them. I have taught the use of a variety of these in personal, professional, and academic contexts through mentoring, workshops, and presentations.

### Software Development - Languages, Tools, Concepts

■ C#	■ Java	■ Angular	■ Azure/AWS	■ DevOps	■ Selenium
■ .NET Core / Framework	■ Typescript	■ Nuxt	■ Linux	■ Git/Svn	■ Databases
■ Python	■ HTML5	■ Node.js	■ Nix/NixOS	■ CI/CD	■ SQL
■ R	■ scss/css	■ Docker	■ Scrum	■ TDD	■ MongoDB

### Design & Implementation Focuses

■ User Experience	■ Interface Design	■ Human-Computer Interaction
■ Accessibility	■ Efficiency	■ Robustness

I also have experience with a range of fabrication technologies, tools, and workflows.

## EDUCATION

August 2022	<b>University of Birmingham - PhD Computer Science</b>
Current	I am currently pursuing a Human-Computer Interaction & Digital Fabrication PhD. This has involved a significant amount of self-direction, skill development, networking, and collaborating with peers around the world using a range of technologies. I have published one paper at conference. As for programming, I have used Python for data decoding & encoding, as well as for complex geometric calculations and integration with CAD software APIs.
2014	<b>University of Birmingham - MSci Computer Science - 1st Class Hons.</b>
2018	I specialised in physical and digital interface design, and study of the intersection thereof.

## PROFESSIONAL EXPERIENCE

August 2022	<b>University of Birmingham - Teaching Assistant</b>
June 2024	Alongside my PhD study, I have worked as a Teaching Assistant for two masters level modules.
August 2018	<b>MiTek Industries Ltd. - Software Developer</b>
July 2022	During my time at MiTek I worked on multiple highly successful projects. I worked on an industry leading Construction CAD app built on C#/SQL to improve performance and add new features to meet the demands of customers tackling larger and more demanding projects. I worked on a full-stack CAD webapp with a rapid turnaround from concept to delivery, using a C#/.NET/SQL backend and a TS/Angular5 frontend. I also worked on a larger logistics web platform for a broad range of international customers with the same technology stack, including developing the early concept, and I ran workshops to assist our other international teams get up to speed with the technologies in use. I worked within and with a number of international teams during my time at MiTek, and worked a lot on APIs for integration between the mentioned products and a few others. I also had a leading role in developing automated tests, as well as our containerisation and Azure CI/CD pipelines.