# Experience Summary

Throughout my industrial experience, I have honed my skills in software development for prototyping, simulation, and production in diverse engineering and software development environments. Taking on various roles and responsibilities has granted me a comprehensive understanding of different disciplines within these fields, enabling me to navigate the process of taking a software device from the prototype stage to regulatory submission. With invaluable expertise and a holistic perspective on product development, I am eager to contribute to challenging and innovative projects.

Skills Summary

* Programming/languages: C#, html, CSS, JavaScript, LabView, MATLAB, Python, CAD & manufacturing, Embedded programming
* Frameworks: .Net Frameworks, Entity framework, bootstrap, jQuery
* Architectural paradigms: MVC, single page application
* Databases: SQL Server
* Methodology: Agile, scrum, waterfall

Experience

**2024 The Tech Academy live project**

During my time at "The Tech Academy" Software Development Bootcamp, I developed three crucial pages for a "Car rental webpage" as part of a dynamic scrum team. I utilized powerful tools like the MVC framework, HTML, CSS, jQuery, and Entity Framework to bring these pages to life, showcasing my ability to create seamless user interfaces and implement key functionalities.

**2019 – Present Software Lead in New product development for software as a medical device, DePuy Synthes, Johnson and Johnson, UK**

My responsibilities include ensuring that software development has the necessary resources and support to achieve objectives. Here are some of my tasks:

* Ensure software development has necessary resources & support.
* Collect user needs, refine/problem statements, create user stories.
* Develop tools/prototypes to assess requirements & conduct studies.
* Lead cross-functional projects, inform stakeholders.
* Plan, coordinate, & monitor development/testing efforts
* Author software specs & acceptance criteria.
* Lead SDLC, including V&V activities.

**2016 – 2019 Front End Research Engineer, DePuy Synthes, Johnson and Johnson, UK**

My role was to use advanced technologies to develop innovative solutions for orthopedics. I focused on exploring technologies such as vision systems, data acquisition and control for electromechanical systems, IoT for data analysis, and wearables. My responsibilities included defining user needs, assessing feasibility of technologies, designing system architecture, and creating prototypes for analysis.

**2015 – 2016 Innovation Engineer, LINPAC packaging, Featherstone, UK**

As an innovation and design engineer, I developed a machine vision-based technique to improve the monitoring of the mechanical properties of polystyrene foam containers in a high throughput manufacturing facility.

**2012 – 2015 Teaching Assistance, Mechanical Engineering department, University of Leeds, UK**

I conducted laboratories classes for the undergraduate ‘Mechatronics and Robotics’ module. My responsibilities included preparing the lab equipment and material. Demonstrating the lab content, assisting the students with their roadblocks and questions, and mark their coursework and assessments.

**2010 - 2011 Design/Project Engineer, Acoustic Applications, Wakefield, UK**

I was part of a team of engineers solving acoustic problems in various industrial sectors, including power stations and aerospace. I worked as a design engineer, taking projects from conception to completion, including sales, engineering drawings, purchasing, and manufacturing. My responsibilities included dealing with customer inquiries, visiting sites for information gathering, creating 2D and 3D drawings, quoting projects, purchasing goods, presenting reports to clients, and working directly with workshop personnel.

**Summer 2009 Teaching Assistance, Mechanical Engineering department, University of Leeds, UK**

This research focused on reducing excessive heat produced by the actuators in the Novel Intelligent Heart Assistive Device (iVAD). A testing rig for the iVAD was designed and manufactured. Responsibilities included creating 3D CAD models, analysing data, solving problems, managing manufacturing procedures, designing a LabVIEW program for heat control, and conducting calibration experiments in the laboratory.

Education and Training

**2022 – present C#.Net Framework bootcamp, The Tech Academy, Portland, USA**

Course content: Version control, HTML, CSS, JavaScript, Database and SQL, Visual Studio, C#.NET, Project Management

**2020** **Practical Machine Learning with Python, QA, London, UK**

**2018 Big Data on AWS, QA, London, UK**

**2018 AWS Technical Essentials, QA, London, UK**

**2011-2015** **PhD, Mechanical Engineering, University of Leeds, UK**

**Thesis Title:** Colonic Diseases Investigation by Robotic Hydro-colonoscopy CoDIR - Mechanical characterisation of large intestine

I am involved in a team of postdocs/PhDs aiming to develop a remotely controlled miniature robot that can replace conventional colonoscopy. My PhD project intends to characterise the mechanical properties of the large intestine and to develop a technique to distinguish healthy from diseased tissue while the robot is in operation.

**2006-2010** **MEng Mechatronics and Robotic Engineering, University of Leeds, UK**

A multidisciplinary course which combines precision mechanical engineering with electronics, robotics, computer control and artificial intelligence.

* 4th year Project: Design and Analysis of a novel Intelligent Ventricular Assist Device (iVAD) Endurance Testing Rig. Results: **(honours)**
* 3rd year project:Design and Development of a novel Assistive Foot Exercise Robotic System for the Elderly. Results: **2:1**
* **Modules:** Drive and Automation, Product Design and Manufacturing process (Injection Moulding), Intelligent Systems, Mechatronics and Robotics systems (Pneumatic & Hydraulic Systems), Control systems and analysis

**1999-2006 Ralf Thoresby High School, Leeds, UK**

Maths (A), Physics (B), Chemistry (B)