

# Samaresh K. Nayak

*Curriculum Vitae*

samnayak@live.co.uk ✉  
 samnayak.com 🌐  
 linkedin.com/in/sam-nayak 🔗  
 github.com/sam-nayak 🐙

## Profile

Recent graduate of Computer Science at the University of Huddersfield. Detail-oriented programmer with 7 years' experience devising adaptive solutions tailored and designed for flexible business and user requirements. Advanced programming knowledge complemented by a proven ability to assimilate and utilise technologies with efficient results.

## Education

### University of Huddersfield

2017–2020

### BSC COMPUTER SCIENCE (HONS)

- Graduated with First-Class Honours, **85.39%** weighted average.
  - 1<sup>st</sup> Year: **AAAAA** [1<sup>st</sup>] | Weighted Average Grade: 84.35%.
  - 2<sup>nd</sup> Year: **AAAAAA** [1<sup>st</sup>] | Weighted Average Grade: 86.50%.
  - 3<sup>rd</sup> Year: **AAAAA** [1<sup>st</sup>] | Weighted Average Grade: 84.84%.
- Relevant modules include: Large-Scale Software Engineering; Object-Oriented Systems Development; Computational Mathematics; Artificial Intelligence; Algorithms, Processes and Data; Relational Databases and Web Integration.

### Lawnswood School

2010–2017

- GCSE Computer Science, Mathematics, Science [Biology, Chemistry, Physics] (**AA ABB**), and 6 additional GCSEs grade **B** or above.
- AS-level Computer Science, Psychology, Mathematics, Chemistry (**BBCE**).
- A-level Computer Science, Psychology, Mathematics (**BBC**).
  - Extended Project Qualification [EPQ] (**B**).

## Experience

### Volunteer IT Mentor

JUN–DEC 2016

### MAECARE

Volunteered for an organisation in which I mentored I.T. skills to elderly people enabling them to manage and understand technology.

### Work Experience Student

AUG 2016

### SKY

Gained hands-on work experience directly with software developers at Sky doing front-end web development using Node.js via the Atom editor. The experience allowed me to understand the expectations of programming at an industrial level using the Agile software methodology.

My communication and teamwork skills also improved since we worked in small teams of five with a combination of pair-programming.

## Technical Skills

**Languages:** Python, JavaScript, Java, C++, L<sup>A</sup>T<sub>E</sub>X  
**Paradigms:** Imperative, Object-oriented, Procedural  
**Web Dev.:** HTML5, CSS3, Git, jQuery, Jekyll  
**Libraries:** TensorFlow, Keras, PyTorch, NumPy, Matplotlib  
**Dev Tools:** Atom, Android Studio, JetBrains' IDEs, Visual Paradigm, Visual Studio

## Awards

2016 Tim Berners-Lee Award Computing/ICT, Lawnswood School.

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## Hobbies and Interests

- Frequently create small-scale programs and scripts for personal use, and increase my knowledge of computer science by reading around the field. Some of my favourite books include *Clean Code: A Handbook of Agile Software Craftsmanship*, *Structure and Interpretation of Computer Programs*, *The C Programming Language*, and *The Art of Computer Programming*.
  - Write and solve programming problems on codewars.com (ranked in top 1%, with 1,200+ code challenges completed).
  - Enthusiastic learner and active participant in online quizzes, such as jetpunk.com (ranked in top 2%, with 3,500+ quizzes completed) and sporcle.com (with 800+ quizzes completed).
  - Avid badminton player for nine years. Member of a badminton society, in which I play two hours a week.
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## BSc Final-year Project

Title: *A Synthesised Fuzzy Deep Neural Network for Image Classification*

Institution & Date: University of Huddersfield, 2019–2020

Grade: A/1<sup>st</sup> (83%)

Summary: A deep learning Python project that classified images (CIFAR-10 dataset) using a specific neural network called a ‘synthesised fuzzy deep neural network’. This model combined a traditional neural network alongside a fuzzy system in a hierarchical structure (written thesis included).

## A-level Project

Title: *Algorithmic Sudoku Generation and Solution*

Institution & Date: Lawnswood School, 2016–2017

Grade: A\* (92%)

Summary: A web-based JavaScript Sudoku generator and solver (written report included). Allowed custom generation, and solved via backtracking.

## Projects

## Extended Project Qualification

Title: *Genetic Algorithms as an Approach for Machine Learning*

Institution & Date: Lawnswood School, 2015–2016

Grade: B (72%)

Summary: A Python program that used a basic genetic algorithm to evolve randomly generated bit strings in order to match an ideal solution from an initial problem (written report included).

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## References

References available upon request.