

# Anurag Saurav Mathew

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[LinkedIn/Anurag-Mathew](#)

[Developer-Portfolio](#)

## EDUCATION

|   |                           |
|---|---------------------------|
| <b>BSc (Honours) Computer Science   University of Manchester</b>  | <b>Graduated Jul 2025</b> |
| • <b>Achievements &amp; Activities:</b> Achieved 2:1 classification, First Class in User Experience module, Developed an AI agent for Hex with a 74.1% win rate, Integrated Spotify API into ‘GhostTyper’ for real-time music playback  |                           |
| • <b>Coursework:</b> Designed processors in Verilog, Built Amazon-clone backend in PHP/MySQL, Developed Othello AI with alpha-beta pruning in Java, Created video games with Tkinter and JavaFX, Conducted CIFAR-100 CNN experiments, Completed Computer Vision module with full marks in image filtering/object detection, Developed enterprise web app using REST APIs, Explored AI through game AI, constraint satisfaction, and robotics labs |                           |
| • <b>Technical Skills:</b> Proficient in Java, Go, Python, C, C#, C++, Solidity, Haskell, HTML, JavaScript, PHP, MySQL, React, OpenCV; Experienced with GitLab & Github, large codebases, debugging, and agile development  |                           |
| <b>Higher Secondary Certificate, Class XII   Shubham Raje Jr. College, Thane, India</b>   | <b>Completed 2021</b>     |
| • <b>Marks:</b> 97.5% (Mathematics & Statistics: 99%; Computer Science: 97%)  |                           |
| <b>Indian Certificate of Secondary Education, Class X   HFS, Thane, India</b>   | <b>Completed 2019</b>     |
| • <b>Marks:</b> 94% (Mathematics: 97%; Computer Science: 100%; Science: 94%)  |                           |

## WORK EXPERIENCE

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|--|----------------------------------|
| <b>Technical Support Engineer   Beckhoff Automation</b>  | <b>October 2025 – Present</b>    |
| • Provide first-line technical support across <b>TwinCAT 3</b> PLC/HMI, <b>EtherCAT</b> networks, <b>Beckhoff</b> IPCs, I/O and motion—triaging tickets, reproducing issues, and delivering fixes/workarounds. |                                  |
| • Build customer-facing <b>demo projects &amp; proof-of-concepts</b> (e.g., <b>TwinCAT Machine Learning/ONNX</b> deployments, basic <b>Vision</b> pipelines) to accelerate adoption and de-risk integrations.  |                                  |
| • Create <b>clear documentation</b> and knowledge-base articles; capture learnings and feed product feedback to engineering; support short <b>enablement sessions</b> for customers and colleagues.            |                                  |
| <b>Food &amp; Beverage Assistant / Team Leader   Stockport County FC</b>   | <b>Jan 2024 – September 2025</b> |
| • Delivered high-volume service to over <b>1,000+</b> customers on matchdays in a fast-paced stadium environment, ensuring speed and accuracy under pressure.  |                                  |
| • Led bar operations during peak periods, supervising and coordinating shifts of up to <b>10</b> staff, improving overall service efficiency by approximately <b>20%</b> .                                     |                                  |
| • Expanded role into retail operations, serving as a <b>club shop assistant</b> handling matchday merchandise sales and stock management.  |                                  |
| <b>Front of House / Team Leader   Manchester United FC</b>   | <b>Jan 2022 – Jun 2025</b>       |
| • Served tens of thousands of customers across <b>3 Seasons</b> at Old Trafford, consistently meeting high hospitality standards during Premier League and cup fixtures.                                       |                                  |
| • Managed small teams of <b>5–8</b> staff in high-pressure service areas, ensuring smooth operations and fast turnaround during peak demand.   |                                  |
| • Built strong customer relationships, resolving service issues promptly to maintain satisfaction scores above <b>90%</b> .  |                                  |

## PROJECTS

|   |                           |
|---|---------------------------|
| <b>Walking on Words (Final Year Dissertation)</b>   | <b>Completed Jul 2025</b> |
| Formalised a novel “walking” model of word generation, extending primitive-word theory to bounded-step surjective walks. Designed and implemented algorithms to explore combinatorial properties, achieving efficient $O(n^4)$ solutions and validated results via experimental evaluation. Commended by examiners for depth and rigor. |                           |
| <b>GhostTyper – Real-time Typing Game with Spotify API Integration</b>  | <b>Deployed May 2023</b>  |
| Built a typing game in Python integrating the Spotify API to stream songs and sync lyrics in real time. Optimised database efficiency with MySQL indexing and caching, improving query speed by <b>30%</b> . Enhanced user engagement by dynamically adjusting difficulty based on lyric tempo.   |                           |
| <b>Hex AI Agent – AI and Games Module</b>   | <b>Completed Dec 2024</b> |
| Developed an AI agent in Java to play Hex, leveraging alpha-beta pruning with heuristics to optimise move selection. Our group achieved a <b>74.1%</b> win rate (47/76 games) and ranked <b>19th</b> in speed (78.6 mark) among all submissions.  |                           |
| <b>Enigma Simulator – Cryptography Tool in Go &amp; React</b>   | <b>In Development</b>     |
| Designing a cross-platform simulator for the WWII Enigma machine using Go for backend cryptographic logic and React + TailwindCSS for the UI. Implemented historically accurate rotor mechanics, plugboard wiring, and step-by-step encryption visualisation for educational use.   |                           |

## TECHNICAL SKILLS & CERTIFICATIONS

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|---|--|
| • <b>Software Development:</b> MERN Stack, Tailwind, Bootstrap, JavaScript, TypeScript, Next.js, Django, Spring, PHP  |  |
| • <b>Data Science &amp; ML:</b> Dash, scikit-learn, TensorFlow, PyTorch, Transformers (Hugging Face), OpenCV, SpaCy, SciPy  |  |
| • <b>Others:</b> Go, Python, Java, C, C++, R, Haskell, Leaflet.js, REST API, ARM Assembly, Verilog, SQL, Docker, AWS  |  |
| • <b>Certifications:</b> Software Engineering - JP Morgan & Chase   |  |
| • <b>Extra-Curricular Activities &amp; Societies:</b> AI Engineer – Manchester Stinger Racing Society (Formula Student AI), Full Stack Developer – Manchester UniCS Society |  |