NUNO GONCALVES

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SKILLS

Programming Languages: Python | TypeScript | JavaScript
Technologies: AWS | SQL | GraphQL | Pandas | SQLAlchemy | Azure | ETL | SOLID | OOP

WORK EXPERIENCE

Specialist Programmer, Infosys   Aug 2022 – Present
London, UK
- Developed an ETL pipeline with Azure Search, GPT-4, Python, multithreading, and SQL to extract data from **400K+ documents**, powering accurate RAG-based chat responses.
- Developed an AI pipeline as part of a research group to modernize **XML/XSLT** legacy systems into scalable **Spring Microservices** using GPT, improving system maintainability and modularity.
- Designed, developed, and optimized various backend APIs using Python, SQLAlchemy, PostgreSQL, AWS to process fuel cost data, reducing response times **under 2.1 seconds** and **boosting** system performance.
- Awarded the **Rising Star Certificate (March 2024)** and **Rise Insta Award (December 2024)** for exceptional contributions to team mentorship and work achieved.

LifeSkills Youth Advisory Councillor (Volunteer), Barclays   Jan 2020 – May 2023
London, UK
- Appointed to a national youth advisory board shaping Barclays' LifeSkills strategy. Advised and improved digital toolkits used by **1M+ young people annually**.
- Featured as a panellist at **Barclays LifeSkills Unpacked seminar**. Helped over 300 educators integrate career readiness and soft skills into their classroom learning, better preparing students for the world of work.
- Delivered workshops to students from underprivileged schools in Taunton Deane, Somerset and Bury, Greater Manchester with the Talent Foundry charity to support their exam preparation.

Operation Intern, Echobox   Jul 2021 – Sept 2021
London, UK
- Analyzed **40%** of Echobox's potential customer base, auditing **200 to 360 clients per week** and onboarding **2000+** new accounts in the third quarter, driving significant growth in customer insights.
- Automated client communication workflows and email reminders using **Java, Apex, and Salesforce**, reducing no-show rates and improving client retention.

Spring Into Technology Intern, JPMorgan   Mar 2020 – Apr 2020
London, UK
- Completed a comprehensive internship focused on business operations and engineering within JPMorgan.
- Gained early insight into the fintech industry through hands-on workshops and technical competitions.

EDUCATION

University of Bath   July 2022
Bachelor of Science in Computer Science   Degree Classification: **First Class Honours**
Courses: Discrete Mathematics, Analytical Mathematics, DSA, AI, Machine Learning

PROJECTS

Turing Machine Lambda Calculus Interpreter (JavaScript, Bootstrap)
- Built a web application interpreter to simulate and translate between Turing Machines and Lambda Calculus, based on formal methods by Dal Lago and Martini.
- Implemented **polynomial-time conversions** between the two models using JavaScript; ensured correctness with automated Jest testing.
- Designed the UI with Bootstrap and jQuery Terminal, enabling real-time interaction and educational use.

Bisca Multiplayer (React, Web Sockets)
- Developed a real-time multiplayer version of the Portuguese card game Bisca, handling session state and client-server communication over Web Sockets.
- Built game state management and turn-based logic to support smooth gameplay and user reconnections.
- Delivered a complete frontend via React, focusing on animations, latency handling, and session persistence.