

Neri Carcasci

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Passionate Computing Science student with expertise in Machine Learning, Cybersecurity, and Software Development. Having co-founded several tech startups, I've developed strong leadership, problem-solving, and project management skills, which I am eager to apply in innovative industry & consulting roles, driving impactful solutions.

EDUCATION

Sept 2022 – August 2026

TU Dublin – **BSc (Hons) in Computing with ML & AI** – GPA: 3.7

TECHICAL SKILLS

Languages & Frameworks:

Python (FastAPI, pytest, NumPy, SciPy, Pandas),
Golang, Java, Bash, C++

AI/ML & Data Science:

NLP Evaluation, Drift & Anomaly Detection, Jensen-Shannon Divergence, Model Testing, LLM Safety, Statistical Analysis

Testing & Quality Assurance:

Dependency Injection, Unit/Integration Testing, CI/CD (GitHub Actions), API Validation, Mocking, Test Architecture

Systems & Security:

RHEL, OS-Level Containerization, Command Line, System Debugging, Secure API Design, Access Control, Penetration Testing, Cybersecurity Campaigns

Software Engineering:

API Design & Exposure, Modular Architecture, Git Workflow, Open Source Contribution

Cloud, DevOps & Platforms:

OpenShift AI, Kubernetes, Docker, Podman, Quay.io, GitHub/GitLab CI, MongoDB, OracleSQL, JSON-based Storage, GCP, Jira

SOFT SKILLS

Creative Problem Solving
Mentoring & Teaching
Continuous Learning
Leadership & Team Management

Adaptability
Resilience & Determination
Enthusiasm
Clear Communication & Pitching

EXPERIENCE

CTO & Co-Founder - Frensei PhD Peer (Sept 2021 - Sept 2025)- 4 yrs

Spearheaded the development of Frensei, a startup recognized with multiple national awards and international acclaim, including LaunchBox, NewFrontiers, ISEF, and others.

- **Led the design and development of the products**
- **Secured a rapidly expanding global client base**, including partnerships with prestigious universities across multiple continents (Canada, India, Ireland & UK).
- Secured \$50k+ in funding + \$500k in signed pilots in pipeline

(Skills: Enterprise Architecture, Containers, API Development, Hosting, Dependency Injection, API Testing, Golang, Bash, Flutter, Google Cloud, Google Firebase, JavaScript)

AI & ML Engineer – Red Hat Trusted AI (Jan 20 – Aug 2025) – Internship – 9 months

Contributing to Red Hat's Trusted AI team to advance the explainability and safety of machine learning models in enterprise and OpenShift environments.

- **Spearheaded the Python rewrite and API exposure of core NLP evaluation metrics** (BLEU, ROUGE, Levenshtein), enabling their integration into the TrustyAI service for the first time.
- Key member of the Testing Q&A team, architecting robust test infrastructure with dependency injection and comprehensive validation for all service endpoints.
- **Redesigned and implemented the mathematical foundations and API layer for drift detection metrics**, including a full rewrite of Jensen-Shannon divergence in Python.
- **Led high-impact educational outreach**, delivering robotics and Python workshops and supporting event design during Red Hat's TY Week initiative.

(Skills: Python, FastAPI, NumPy, SciPy, OpenShift AI, Docker, Podman, GitHub Actions, API Design & Testing, NLP Metrics, LLM Safety, Metric Porting, Open Source Contribution)

Applied Maths & Computer Science Teacher – Educating Eire (May 2023 – June 2024) – 1 yrs

- Taught senior cycle students in Applied Maths and Computer Science, following several years of freelance tutoring experience across secondary, undergraduate, and professional levels (2,000+ hours).

Cybersecurity Consulting – Ernst and Young (May 2023 – August 2023) – Internship – 3 months

- Gained practical experience in penetration testing, cyber campaign management, and client engagement, while contributing to innovation initiatives such as the EY Sustainability Challenge and Open Science AI/ML competitions.

(Skills: Vulnerability Reports, Passive & Active target scanning, Penetration Testing, Cyber Campaign management, Cybersecurity Standards and Methodologies)

Co-Founder – SnapStudy (2019) – 1 yrs

- Developed an AI-powered EdTech mobile application, successfully launching it on both the App Store and Google Play. Played a key role in the platform's growth before transitioning out after the company's acquisition

ACTIVITIES AND LEADERSHIP

2-time ISEF finalist, placed on the podium in 2024, winning \$5,000 in recognition of outstanding achievement.

Huawei Seeds for the Future 2023

Finished New Frontiers Phase 2

Featured in Irish Times Article

Venture Lab **GrowthHup Pre-Accelerator** 2022

Developed operational and usable Deep learning library in C# and C++

Developed functional Smart Home Automation software using AI to autonomously manage thermostat, cameras, appliances, hot water and doors.

Currently pursuing 6 months nanodegree in **Enterprise Security**, finished a 6 month nanodegree in Deep Learning

REFERENCES

Ali Rizvi – CEO Frensei
PhD Researcher & Professor @ Trinity
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Emma & Eva - Founders
Educating Eire School
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