Ananta Shahane, M.Sc.

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Objective

As a recent Master's graduate in Foundations of Computing from Universiteit Leiden, I bring a profound understanding of Evolutionary Algorithms, essential for navigating complex search spaces in real-world energy challenges. My academic experiences have equipped me with unique problem-solving skills, particularly suited for innovative solutions.

Education

Universiteit Leiden, The Netherlands

Master of Science—Computer Science   2021-2023
Thesis: *A Corridor Model Evolutionary Algorithm, for Fast Converging Green Vehicle Routing Problem*
Coursework: Quantum Algorithms, Evolutionary & Combinatorial Algorithms, Multimedia Systems, Software Testing & Verification, Robotics, Modern Game AI, Computational Models & Semantics, Deep Learning, Embedded Systems.

Pune University, India

Bachelor of Engineering—Computer Engineering   2014-2018
Thesis: *A Broker Model for Micro-Service Orchestration*
Coursework: Object Oriented Programming, Microprocessor Architecture, Operating Systems, Data Structure and Problem Solving, Computer Graphics, Digital Signal Processing.

Relevant Experiences

Fall 2023 — **Research Thesis @Leiden Institute of Advanced Computer Science, under Prof. Y. Fan**
Remodelled *genetic algorithm* for *green vehicle routing problem* accounting for customers' locality, and engineered *corridor model*. Reduced average AUC for 92 benchmarks of 500 iterations by 10%.
Evolutionary Algorithm | Swift | Python | Multi Objective Optimsation | NSGA-II

Fall 2022 — **Evolutionary Intelligence, Prof. Hao Wang (LIACS)**
Designed genetic algorithm for searching DL Architecture for image detection; revealed the link between adjacency matrices and the crossover operator, improving convergence speed and stability.
Python | nasbench | Evolutionary Algorithm | Deep Learning | iOH Analyser

2018-2022 — **Self Employed: iOS Developer**
Developed, published and supported a cross platform app 'Today Productivity' on iOS, iPadOS and macOS, designed to assist users plan and execute their days, with widgets and iCloud support.
Xcode | Swift | SwiftUI | RDBMS | CloudKit | WidgetKit | Publishing | Web Development

2017-2018 — **Trusting Social: Gilmour Proxy**
Engineered a robust proxy for the Gilmour micro-service broker system, facilitating universal access across programming languages via HTTPS. It efficiently manages a vast array of micro-services.
Golang | Micro-Services | Docker | Prometheus | Linux | macOS | HTTP Protocol

Skills

Frameworks — Minecraft(gdmc), json, HTTPS Protocol, SwiftUI, Qt, Cirq, Openfermion, Scikit-learn, Keras.

Languages — C++, C, Swift, Python, Golang, Markdown.

Miscellaneous

2013-2014 — **Certificate of Merit; Physics** (Centre Point School, India)
Awarded for Excellence in Physics by the British Council International School Awards (1st/120).

2019 — **Fundamentals of Red Hat Enterprise Linux** (edX)
Awarded for 100% completion of course, with 8 assignments, 6 weeks.

2017 — **Networking and Security in iOS Applications** (University of California, Irvine via Coursera)
Awarded for 98% grade of course, spanning 4 months and 16 assignments.

2010 — **National Cyber Olympiad** Scored #1,896 (91 percentile) in National Olympiad.

Conferences — Free Open Source Software Meet (2018), try! Swift Banglore (2017), GopherCon 2018, Kernel Meetup 2017-2018, Google Meetup 2018, Quantum Games (2023), Quantum Amsterdam (2023).

Scores — **ToEFL**: 101/120 **GRE**: 316/340 (Quant: 167, Verbal: 149), **Hackerrank**: 78% solved.

Activities — **Biking** (1800^{+} km); **Gaming**: Tekken 7 (Finished 17th of 107 in national DOJO event); **Music**: Jazz; **Hobby**: PC Building, **Trekking** 180km in 5 days to Pindhari Glacier.

References available on request.