







ANANTA SHAHANE

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 Leiderdorp
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 Zoeken Jaar; 11/2024

M.S. Computer Science

SKILLS

 Swift, C++, Python, Golang, Markdown, C, bash
 gdmc, json, HTTPS, SwiftUI, Qt, Cirq, Openfermion, Scikit-learn, Keras, Docker, SQL
 macOS, Linux-Fedora, Asahi Linux, Ubuntu, RHEL (RH066x Certification)

RESEARCH & RELEVANT PROJECTS

Fall 2023
masters thesis
Research Thesis Y. Fan, LIACS
Engineered geometrical perspective to solve *green vehicle routing problem* using *Evolutionary computation*.
Introduced initialiser that produces population 30% closer to optimal solution compared to industry standard.
Improved convergence speed by 10%, while reducing hyper-parameter count from 10-12 to only 2-3.
Research published in [ACM Journal](#) by [GECCO 2024](#).
Evolutionary Algorithms / Swift / Python / OOP / MOO / NSGA-II

Spring 2023
Experiment: Embedded Systems Dr. T.P. Stefanov
Programmed and optimised software for Xilinx FPGA to perform real-time edge detection.
Used only 66% of the expected channels in KPN leading to 28% performance lift.
Earned recognition as the top performing software among peers.
Sobel / C / Daedalus / FPGA Programming

Fall 2022
Research Assistant, Evolutionary Intelligence Lab Dr. Hao Wang
Designed genetic algorithm for searching DL Architecture for image detection.
Discovered the link between adjacency matrices and the crossover operator.
Improved convergence speed and stability towards optimal solution.
Python / nasbench / Evolutionary Algorithm / Deep Learning / iOH Analyser

Fall 2022
Experiment: Robotics Dr. E.M. Bakker
Utilised time averaged K-Nearest Neighbors to discriminate between walls and furniture.
Helped navigate the robot between rooms easily by reducing resource utilisation on perception.
Python / Machine Learning / CoppeliaSim / Trigonometry

Spring 2022
Experiment: Quantum Algorithms Dr. Vedran Dunjko (LIACS)
Explored Randomised Measurement Toolbox or Classical shadows and its diverse applications.
Validated a section of the research paper by implementing the algorithm.
Python / cirq / openfermion / numpy

2018-2022
Apple Platforms Developer Freelance
Developed, published and supported a cross platform app [Today Productivity](#) on iOS, iPadOS and macOS.
Assisted users to plan and execute their days, using latest *Apple Technologies*.
Xcode / Swift / SwiftUI / RDBMS / CloudKit / WidgetKit / WebDev

2017-2018
Software Engineering Intern Trusting Social
Engineered a robust proxy for the Gilmour micro-service broker system, facilitating universal access across programming languages via HTTPS. That efficiently managed a vast array of micro-services.
Golang / Micro-Services / Docker / Prometheus / Grafana / Google Advisor / HTTP / json

EDUCATION

2021 - 2023
Masters of Science Leiden University, The Netherlands
Computer Science—Foundations of Computing 7.50
A Corridor Model Evolutionary Algorithm for Fast Converging Green Vehicle Routing Problem. 8.33
Courses: Quantum algorithms, evolutionary & combinatorial algorithms, multimedia systems, software testing & verification, robotics, modern game AI, computational models & semantics, deep learning, embedded systems.

2014 - 2018
Bachelor of Engineering Pune University, India
Computer Engineering 64%
Thesis: A Scalable Broker Model for Micro-Service Orchestration. 90%
Courses: OOP, microprocessor architecture, OS, data structure and algorithms, computer graphics, DSP.

MISCELLANEOUS

2017-2024	Conferences Free Open Source Software Meet (2018), try! Swift Bangalore (2017), GopherCon 2018, Kernel Meetup 2017-2018, Google Meetup 2018, Quantum Games (2023), Quantum Amsterdam (2023), GECCO 2024 Melbourne Australia.	
2019	Fundamentals of Red Hat Enterprise Linux (RH066x) Awarded for 100% completion of course, with 8 assignments, 6 weeks.	edX
2017	Networking and Security in iOS Applications Awarded for 98% grade of course, spanning 4 months and 16 assignments.	University of California, Irvine via Coursera
2013-2014	Certificate of Excellence in Physics Awarded for Excellence in Physics by the British Council International School Awards (1 st / 120).	Center Point School
2010	National Cyber Olympiad Scored #1,896 (91 percentile) in National Olympiad.	National Olympiad Foundation, India
Achievements	Scores ToEFL: 101/120 GRE: 316/340 (Quant: 167, Verbal: 149) Hackerrank: 5 ★ C++ Problem Solving Python / 4 ★ C	

LANGUAGES

English - proficient
Marathi - native
Hindi - native
Dutch - learning

ACTIVITIES

Biking (3400+ km); **Gaming**: Tekken 7 (Finished 17th of 107 in national DOJO event); **Music**: Jazz;
Trekking 180km in 5 days to Pindhari Glacier. **Olympiads**: Consistently top 8 performing students in school in National Olympiads. **Intellectual**: Passionate about Physics and Mathematics; **Hobby**: PC Building.
