Taha Shieenavaz

underdash.pro
github.com/tahashieenavaz

Padova, Italy

tahashieenavaz@gmail.com
linkedin.com/in/tahashieenavaz

Summary

Experienced computer engineer with nearly 10 years in full-stack development and a strong focus on **deep learning**, **computer vision**, and **Transformer-based architectures**. Skilled in modern web technologies with a proven ability to lead teams, mentor students, and deliver both research and production-level software. Passionate about building practical AI systems, advancing **Generative AI**, and exploring the intersection of technology and finance through a growing fascination with **quantitative development**.

Professional Experience

Senior Web Developer — FaceIT — 2023–Present

- Lead technical development for Generative AI tools that support personalized learning and self-study.
- Design scalable web platforms integrated with AI models and real-time data pipelines.
- Mentor incoming student developers and manage small cross-functional teams.
- Guide product development cycles from planning to deployment.
- Collaborate with researchers and designers to build user-friendly AI solutions.

Deep Learning Researcher — University of Padova — 2024–Present

- Developed and tested models using state-of-the-art Transformers for image classification.
- Created custom ensemble pipelines with modified loss functions for better performance.
- Ran experiments on datasets such as **CIFAR-100** and **TinyImageNet**.
- Contributed to research papers and experimental documentation.
- Ensured project reproducibility and shared results across teams.

Teaching Assistant — IKIU & University of Padova — 2022–Present

- Delivered over 100 hours of labs and tutorials on databases, software design, and programming.
- Helped students understand assignments and improve project code.
- Created instructional materials to explain complex technical topics.
- Promoted group work and guided student teams through collaborative projects.
- Addressed technical and interpersonal issues among student groups.

Freelance Full-stack Developer — 2015–2022

- Designed and built more than 30 web applications and APIs for small businesses and individuals.
- Used Laravel, React, Vue.js, and Python frameworks to deliver responsive and reliable software.
- Deployed projects using **Docker** and orchestration tools to ensure scalability.
- Integrated **ChromaDB** and other vector search technologies in AI-powered applications.
- Managed full project life cycles including client communication, planning, development, and maintenance.

Education

University of Padova, Italy — 2024–Present

Master of Science in Computer Engineering – **AI and Robotics Track**

- Focused on deep learning, computer vision, and Transformer architectures such as **DeiT**, **ViT**, **CoaTNet**, **CrossViT**, **Swin**, and **BEiT**.
- Built ensemble models for image classification using multiple neural network backbones.
- Designed new loss functions to improve prediction confidence and model performance.
- Worked closely with researchers across departments on applied AI projects.
- Currently writing a thesis on **uncertainty-aware ensemble learning**.

I.K. International University, Qazvin, Iran — 2018–2022

Bachelor of Science in Computer Engineering (GPA: **16.04/20**)

- Supported peers as a teaching assistant in systems programming and algorithms.
- Organized workshops and community events for computer science students.
- Created and delivered several solo and team-based software projects.
- Gained strong public speaking and presentation experience through teaching and student events.

Shahid Soltani 3 – N.O.D.E.T, Karaj, Iran
High School Diploma in Mathematics and Physics
- Selected for a national program for gifted students.
- Built a strong foundation in logic, math, and problem-solving.

Selected Projects

Web-Based Pong   github.com/tahashieenavaz/pong
A browser-based remake of the classic Pong game using JavaScript and HTML5 Canvas. Demonstrates core concepts of game development, including real-time rendering, input handling, and basic collision physics.

InvestoGraph   github.com/tahashieenavaz/investograph
A Python project that analyzes the subway systems of São Paulo, Paris, and London to evaluate and rank neighborhoods. Combines transit accessibility with geographic data to suggest areas with better overall connectivity and living conditions.

Simplex Solver   github.com/tahashieenavaz/simplex-solver
A lightweight Python tool implementing the Simplex algorithm for solving linear programming problems. Designed for educational use, it guides users through each iteration and displays step-by-step results.

Wordle Recreation   github.com/tahashieenavaz/wordle
A functional clone of the original Wordle game, built with HTML, CSS, and JavaScript. Includes full word-checking logic, user feedback, and a clean interface for an engaging puzzle experience.

Activities

Machine Learning Workshop   youtube.com/watch?v=NaS63KLIh6w
A 20-hour beginner-friendly workshop introducing the core concepts and practices in modern machine learning.
- Explained the purpose and process of splitting datasets into training, validation, and test sets, both conceptually and using `train_test_split` from scikit-learn.
- Demonstrated practical applications on real datasets including the Boston Housing dataset to reinforce data handling skills.
- Compared regression and classification tasks, providing guidance on choosing the right algorithms for each type of problem.
- Introduced the concept of ensemble models, discussing when and why combining models can outperform single-model solutions.

WorldSkills — Web Technologies (Iran, 2022)
Awarded the Bronze Medal in the national round of WorldSkills, a global competition showcasing excellence in web development.

Technical Skills

Languages: Python, C++, JavaScript, PHP, SQL
Frameworks: PyTorch, TensorFlow, Laravel, React, Vue.js, FastAPI
Tools: Docker, Git, Linux, ChromaDB, Postman, Figma, LaTeX

Soft Skills

Public Speaking	Problem Solving
Team Leadership	Project Management
Mentoring and Training	Clear Communication