



Jovan Filipović

Electrical & Computer Engineering
Agentic AI, Automation & Applied Software Systems

CONTACT

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SKILLS

AI & Software

Python, OpenAI Agents SDK, CrewAI, LangChain, LangGraph, Claude, LLM Agents, Prompt Engineering, Pydantic, SQLite, Gradio, APIs, Git/GitHub, n8n, Flowise, RAG concepts.

Robotics & Automation

ROS/ROS Noetic, Linux/Ubuntu, MATLAB, Siemens TIA Portal, PLC Programming, WinCC/HMI, ABB RobotStudio, SolidWorks.

Office & Tools

Microsoft Office, Visual Studio, Adobe Programs, Cursor.

LANGUAGES

Serbian - Native
English - C1
Italian - B1
German - B1

INTERESTS

Agentic AI & Automation
Robotics and Sensors
Industrial Automation
Embedded Systems
Signal Processing

PROFILE

Electrical and Computer Engineering graduate focused on Agentic AI, AI automation, and applied software systems, currently completing MSc-level coursework in automation, robotics, signal processing, and computer vision. Builds Python-based AI tools using LLM APIs, structured outputs, persistent data workflows, and human-in-the-loop interfaces, backed by hands-on experience in PLC/HMI automation and industrial control systems.

EDUCATION

Politecnico di Milano, Italy

MSc, Automation and Control Engineering (admitted)

10/2026

University of Belgrade, School of Electrical Engineering

Signals and Systems Department

09/2019 - Present

- BSc, Electrical and Computer Engineering, completed 2025.
- MSc studies (Signals and Systems / automation-related coursework), expected 2026, covering Machine Learning, Computer Vision, Control Systems, Signal Processing, Robotics and Automation, and Embedded Systems.

Gymnasium, High School

Kruševac, Serbia

09/2016 - 05/2019

WORK EXPERIENCE

IC Systems Automatika, Kruševac, Serbia

Trainee, Industrial Process Automation

08/2024 - 09/2024

- Supported development of a liquid dosing system with 0.1% accuracy, combining automated and manual PLC control (TIA Portal) with Weintech HMI customization; calibrated and tested the system to confirm precision.
- Contributed to a buffer-tank level control system using pump valves and hysteresis-based control, improving pump efficiency and reducing wear.

Danieli Systec Engineering, Belgrade, Serbia

Internship, Industrial Automation & Process Control

03/2023 - 06/2023

- Programmed Siemens PLCs and designed WinCC HMI applications; studied electrical schematics and worked hands-on with industrial automation hardware.
- Designed and implemented a height-based box-sorting system (conveyor, rotary table, sensors) in Factory I/O, with a corresponding WinCC HMI and TIA Portal program.

IC Systems Automatika, Kruševac, Serbia

Trainee, Industrial Process Automation

04/2022 - 05/2022

- Implemented a Siemens S7-1200 PLC connection between a frequency regulator and an asynchronous motor; programmed HMI controls for start/stop and potentiometer-based speed regulation.

PROJECTS

AI & Agentic Systems

- Jovan OS Lite:** Personal agentic operating system for planning, evaluating, and optimizing goals. Built Planner, Evaluator, Weekly Review, and Optimizer agents using Python, OpenAI Agents SDK, Pydantic, SQLite, and Gradio, with structured outputs, persistent state, Markdown reports, and human-approved optimization.
- Balkan TV Lead & ERP Agent:** Agentic AI system for an OTT/IPTV provider serving Balkan diaspora users in Turkey. Analyzes ERP customer data, cleans partner lead databases, prioritizes B2B leads, and drafts personalized outreach messages with human approval.
- Smart Factory Workforce Planner:** Concept/MVP for assigning industrial workers to projects based on skills, availability, workload, deadlines, and changing production conditions.
- Personal AI Automation Portfolio Website:** Built a modern Next.js/TypeScript portfolio website showcasing AI automation, agentic AI, robotics, and engineering projects, with case-study pages, responsive design, and LinkedIn outreach positioning.

CERTIFICATES & COURSES

AI & Technical

Complete Agentic AI Engineering

Udemy / Ed Donner · Coursework Completed

AI Automation with n8n & APIs

Udemy · Completed

LLM Mastery

Udemy · Completed

PyTorch / Deep Learning

Udemy · Completed

IBM Agentic AI

Coursera · Completed

Other

FCE Certificate

NLP Certificate

PCM Advanced Certificate

Mnemonics Certificate

Navak Certificate

TECHNICAL FOCUS

- Agentic AI
- AI Automation
- ROS / Ubuntu
- Computer Vision
- Industrial Automation

ENGINEERING & ACADEMIC PROJECTS

- **ROS Robotics Project:** Built a ROS/Ubuntu robotics project focused on robot kinematics, coordinate transformations, odometry/localization, path mapping, and Kalman-filter-based state estimation concepts.
- **Digital Image Processing 2 Project:** In-progress academic project applying digital image processing and computer vision techniques for image analysis, preprocessing, feature extraction, and structured evaluation.
- **CNC Machining & 3D Printing:** 3D-modeled parts in SolidWorks, manufactured via 3D printing and CNC turning/milling.
- **Robotics Assembly:** Programmed an ABB robot (RobotStudio) to assemble precision parts produced via CNC and 3D printing.
- **Embedded MSP430 Project:** Mixed-signal application on the TI MSP430 reading two voltage channels, with LED display output and button-controlled frequency/channel switching.
- **Hydraulics & Pneumatics Project:** Designed and implemented a hydraulic/pneumatic control task to specified requirements.

VOLUNTEERING & LEADERSHIP

- **Mentor the Young Program, Mentee:** Completed a 3-month mentorship program focused on professional communication, time management, presentation skills, networking, LinkedIn/Sales Navigator, sales and business development, entrepreneurial mindset, market research, ICP definition, and early business idea development.
- **ETF Basketball Team, Captain & Organizer:** Coordinated tournament logistics, team communication, sponsorship outreach, partner follow-ups, and deliverables while representing the Faculty of Electrical Engineering in student competitions.