Sava Statkov

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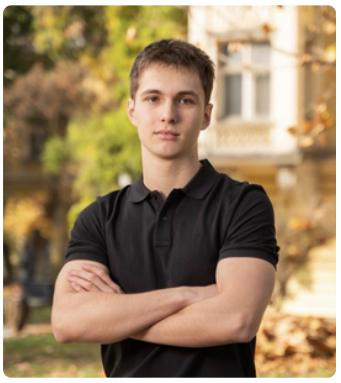
Software Engineer & Researcher



EDUCATION

Second English Language School "Thomas Jefferson"

Major: Informatics and Mathematics

High School Student (2021–2026)

Software University (SoftUni), Sofia

Technical Student (2022–2025)

National Educational Complex of Culture

Middle School Student (2014-2021)

TECHNICAL SKILLS & CERTIFICATIONS

Programming & Tools

Python, Lua, C++, Javascript, SQL, HTML&CSS, MATLAB, Git/GitHub

Frameworks & Libraries

OpenCV, NumPy, Matplotlib, Scipy, FR scripts, Tkinter

Specialization Certificates

Python Full Stack Developer
Computer Vision Specialization
Industrial Manufacturing & Automation
AI for Developers

LANGUAGES

• English • Bulgarian • Russian

SUMMARY

I am a software engineering student focused on building intelligent systems that move beyond the screen to interact directly with the real world. My work bridges between digital logic and physical environments, ranging from *Industrial Automation and Robotics* to specialized applications in *Digital Healthcare* and *Computer Vision*. I am passionate about creating integrated software pipelines that enable hardware to understand and react to complex processes.

EXPERIENCE

NICK2000 | *Automation & Robotics Engineer (Full-Time)*

Dec 2025 – Present

- Designing and integrating a *collaborative robot system* to automate the precision faceting of optical elements.
- Developing a *computer vision inspection system* using calibrated cameras to detect micro defects and verify geometric measurements.

GATE Institute | *Research Intern (Digital Healthcare)*

Jun 2025 - May 2026 (11 months)

- Conducted research on *EEG Signal Processing* and *Computer Vision* for patient monitoring.
- Developed algorithms for anomaly detection, specifically focusing on *fall detection and rapid movement analysis* in clinical settings.

Language School "Thomas Jefferson" | *App Developer*

Feb 2026 - May 2026 (Volunteering)

- An interactive *kiosk application* for a touchscreen monitor to manage schedules, institutional announcements, and achievements.

PUBLICATIONS & SCIENTIFIC ACTIVITY

UCTM National Conference: "*Matrix-Based Structures for Core Game Mechanic Design in Python*" | ***ITA** 2025*

- Explored the intersection of mathematical modeling and system behavior, focusing on movement & collision logic.

National Competition *"Young Talents" 2026* | *Finalist & Awardee*

- Bulgarian Academy of Sciences **(BAS)**: Selected among the top finalists from 120+ entries for research in "*Robotic Automation of Optical Facet Processing with Integrated Vision Inspection.*"
- Received a formal excellence award presented by the *Ministry of Education & Science* in the presence of former Minister prof. Sergei Ignatov at the granting ceremony.

Current Research: Submitted a technical report to the IEEE **ICARAI** conference regarding intelligent systems (status pending).

HONORS & AWARDS

- *Ministry of Education & Science Award*: Recognized for excellence in engineering and automation at the National Young Talents competition.
- Receved a Certificate for participation and **Award for Excellence** at the *National conference of Informatics and Automation*.
- Institutional Research Distinction: Acknowledged as a pioneering student by the "*Thomas Jefferson*" *Language School* for achieving national research success; personally cited by the school's principal for elevating the institution's academic prestige.
- Professional Certificate in **Software Engineering**: SoftUni (*Comprehensive track covering Python, Web Development, SQL databases, DevOps and Containerization*).
- Awarded for the successful completion of the *GATE Institute Internship Program*; recognized for specialized research in EEG signal processing and vision-based human movement monitoring.

PERSONAL WORK

Precision Optical Measurement System using Computer Vision | *Lead Developer*

- Engineered a Python/OpenCV tool for sub-millimeter facet measurement of optical elements using *Gaussian filtering, Canny edge detection, morphological operations and other methods*. Developed an image-processing pipeline with camera calibration to translate pixels into micrometers for high-precision industrial inspection.

SynapseVisionLab | *Software Contributor*

- A high-performance, cross-platform desktop application using C++ and Qt for visualization and analysis of multi-channel EEG signals. The system features a robust processing pipeline for neurological data and is currently being expanded to include research-grade tools such as *ICA/PCA artifact removal, topographic scalp mapping, and automated ERP analysis*.