Stefan Vučković

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Education

Glasgow University - Class of 2026 (Pred. 1st Class) Glasgow, Scotland
MEng Electronics and Software Engineering *Sept. 2021 – May 2026*

Experience

Embedded Software Engineer (Master's Project) – *Thales UK* *Jun 2025. – Dec. 2025*

- Master's Project Title: *Optimisation of Servo Controllers and Software-In-Loop on Constrained Microcontrollers*
- Reduced runtime of primary test/verification tool of control systems by **99.4% (167x improvement)**
- Optimised both **code generation** and generated **C++** code, **reducing CPU usage by 38%** on average, bringing multiple systems within operational constraints.

Software Engineering Intern – *Integrated Environmental Solutions Inc* *Jun. 2024 – Jun. 2025*

- Became **Team DevOps Architect**, responsible for developing and maintaining automated build processes as part of the Core Simulation team, improving overall efficiency.
- Engineered shell scripts and automated **pipelines** that reduced time spent on build processes by **80%**, saving approximately **364 developer hours** per developer annually.
- Extended core testing tools in C++ and Python and performed unit, integration, and regression **testing** on internal packages to ensure consistent software quality

Freelance Software Engineer – *Vectofy (Orange Matter Ltd)* *Oct. 2023 – Mar. 2024*

- Created an Excel Add-in using **.NET & TypeScript** to help finance industry companies onboard new employees efficiently, reportedly **cutting down onboarding time by up to 90%.**
- **Led 7 developers as Scrum Master, and System Architect** in development of a full-stack web application for data visualisation, dependency management.
- Worked with **DevOps**, integrating **CI/CD pipelines**, ensuring consistent deployment using **React** and .NET

Other Roles: **Software Developer** - *3 additional positions*, **Graduate Teaching Assistant** - *Uni of Glasgow*

Personal Projects

UGRacing: Embedded IoT Telemetry System | *Github* | *C, C++, Embedded, IoT, Terraform* *Sept 2025*

- Architected **end-to-end telemetry pipeline** achieving **sub-500ms latency** from racecar sensors via Arduino and LTE-M cellular connectivity, for real-time vehicle dynamics analysis
- Enabled **live track-side diagnostics** for vehicle dynamics for all future test sessions
- **Automated cloud infrastructure deployment** with Terraform across custom provider, including handover documentation that enabled non-technical team members to provision environments independently

Drone Swarm Simulation Software | *Video* | *Distributed Systems, Simulation, Collision Avoidance* *Mar 2025*

- Working on a research paper on **distributed drone-swarm** logic to autonomously forms complex 2D/3D shapes.
- Built a **real-time simulation framework** to rigorously verify advanced collision-avoidance algorithms.
- Optimised performance to support smooth, large-swarm simulations on commodity hardware.

Technical Skills

Programming Languages: Python, C++, Powershell, Bash, TypeScript, JavaScript, Golang, C, Java, Rust, Elixir
Frameworks: AzDev, CMake, Conan, React-Native, React, PyTorch, CUDA, Plotly, Dash, Arduino, Simulink, Pheonix
Languages: English (Fluent), Serbian (Fluent), German (Intermediate)

Achievements

DYHTG Glasgow University Hackathon *Winner 2025, Winner 2022, Honourable Mention 2023*
Formula Student UK Concept Overall Winner *Team Member, 2024*
British Team Maths Challenge *National Finalist, 2020*
Arkwright Engineering Scholarship *Recipient, 2021*
Engineering Excellence Award *Recipient, 2024, 2025*

Strengths

Problem Solving, Agile Development, Embedded Systems. System Architecture, Motivator & Leader, Public Speaker