

GLEB BULYGIN

DIGITAL FABRICATION SPECIALIST | EDUCATOR | FULL-STACK DEVELOPER

Maker, engineer and educator with over ten years of hands-on experience in rapid prototyping, electronics and PCB design, embedded programming and CAD, now expanding into full-stack software development. Teaches Fab Academy and Principles of Digital Fabrication at the University of Oulu and leads the Mobile Fab Lab. Background in radiophysics and aviation weather-system engineering.

CONTACT

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CORE SKILLS

Rapid prototyping
Electronics design & PCB production
Soldering & hardware assembly
Embedded programming
Computer-aided design (CAD)
Workshop design & teaching
Technical writing & presentation

SOFTWARE DEVELOPMENT

Languages: Python, MicroPython, Kotlin, JavaScript, TypeScript, SQL, Bash, PowerShell, HTML/CSS

Frameworks: React, React Native, Node.js

DevOps & cloud: Git, Docker, CI/CD, AWS, Azure

DESIGN & FABRICATION TOOLS

CAD / 3D: Fusion 360, Onshape, FreeCAD, OpenSCAD, Blender, Inkscape

Electronics: KiCad, Arduino IDE, PlatformIO, Visual Studio

LANGUAGES

Russian C2 English C1 Finnish B2

PERSONAL STRENGTHS

Problem solving · Leadership · Teamwork · Time management · Strong work ethic



Scan for portfolio & projects

PROFESSIONAL EXPERIENCE

Instructor & Teacher

Apr 2018 – present

Super Fab Lab Oulu, University of Oulu

- Teach Fab Academy and Principles of Digital Fabrication modules: computer-aided design, molding and casting, 3D scanning and printing, mechanical design, interface and application programming
- Operate and maintain 3D printers (FDM, SLA), laser cutter, CNC router and PCB mill
- Support lab users and customers with equipment and fabrication workflows
- Run hands-on activities at public events: Oulu Dance Hack, Oulu Science Hack Day, Researchers' Night, Vectorama, Abi-päivät

Team Leader & Instructor

Jan 2021 – present

Mobile Fab Lab, University of Oulu

- Developed the concept of the Mobile Fab Lab, bringing digital fabrication to schools across Northern Finland
- Design, organise and run hands-on digital fabrication workshops in schools
- Manage the mobile equipment fleet and plan the project budget
- Build and maintain partnerships between the University of Oulu and regional schools

Lead Instructor

Sep 2022 – Jun 2023

Make4Change

European Social Fund project strengthening the employability of Oulu-region residents through digital fabrication and making

- Ran a series of digital fabrication workshops for project participants

Research Assistant

Apr 2018 – Dec 2020

Optoelectronics and Measurement Techniques Research Unit, University of Oulu

- Designed and built the prototype device for DentSaver, an optoelectronics-based early-stage dental diagnostics project
- Conducted DentSaver clinical trials in Vaasa (Dec 2018 – Jan 2019)
- Designed and built a non-rotating prototype instrument for the ICEMET project
- Teaching assistant on the Optical Systems course (521241A); ran research experiments and processed measurement data

Engineer

Jan 2012 – Feb 2017

Institute of Geophysical Instruments Design, St. Petersburg

- Pre-assembled, installed on site and configured AMIS-RF automated weather observing systems at airports across Russia and Kazakhstan
- Set up and calibrated meteorological sensors for accurate, reliable aviation weather data
- Trained airport personnel and provided ongoing customer support

EDUCATION

Degree Programme in Information Technology

2024 – present

Oulu University of Applied Sciences (OAMK)

Fab Academy

2019

Fab Lab Oulu · Fab Foundation global programme in digital fabrication

Radiophysics studies

2009 – 2011

Peter the Great St. Petersburg Polytechnic University, Faculty of Radiophysics