Eduard Tanase

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Education

Purdue University West Lafayette, IN
B.S. in Computer Engineering, GPA: 4.0/4.0 *Aug. 2022 – May 2026*
- Affiliations: John Martinson Honors College, Purdue IEEE Student Branch, Romanians of Purdue (Co-Founder)
- Study Abroad: National University of Singapore (Spring 2025)

Experience

Software Engineer June 2024 – Present
ECELabs LLC *West Lafayette, IN*
- Led rewrite of Verilog educational platform (used by 300+ students) from JQuery/HTML to Vue.js + FastAPI
- Introduced CI/CD pipeline, automated tests, and full-stack Sentry monitoring for maintainable deployments
- Cut API latency by 97% through backend parallelization and reduced production errors by 98%
- Maintained Kubernetes infrastructure and built Grafana dashboards that helped proactively resolve server outages

Undergraduate Researcher Jan 2024 – Dec 2024
Nano Neurotechnology Lab @ Purdue *West Lafayette, IN*
- Built and evaluated ML models to decode motor behavior from mouse neural data with PyTorch and Scikit-learn
- Presented work at Purdue BME Research Symposium, co-authored presentations at SfN 2024 and Cosyne 2025

Undergraduate Researcher Jan 2024 – Dec 2024
System on Chip Extension Technologies (SoCET) @ Purdue *West Lafayette, IN*
- Ported Picolibc to a custom RISC-V microcontroller, with I/O via UART for simulation and FPGA execution
- Built automated FPGA flashing scripts for Intel Quartus using TCL, streamlining testing and deployment
- Designed a common-source amplifier and simulated NMOS transistors using Cadence Virtuoso

Vice President, Technical Committees May 2024 – Dec 2024
Purdue IEEE Student Branch *West Lafayette, IN*
- Managed 7 technical committees, overseeing over 800 active members as Purdue's largest technical organization
- Led ML model development for NeurotechX competition in Systems, Man, and Cybernetics Society

Chief Technology Officer (CTO) July 2023 – Present
Deaf-i *Phoenix, AZ*
- Built a website and blog for Deaf-i, a nonprofit for cochlear implant recipients, with Next.js, Prismic, & Stripe
- Implemented SEO & best practices, reaching 300+ monthly views, 700+ search impressions, $1000+ in donations

Projects

Rust Sublanguage Interpreter | *NUS CS4215 Programming Language Implementation* Mar 2025 – Apr 2025
- Built an interpreter for a statically typed Rust sublanguage with compile-time type checking and borrow checking
- Developed compiler, memory model, and virtual machine in JavaScript, with ANTLR for grammar parsing

Graphisophy | *Next.JS, React, Postgres, Clerk, Drizzle ORM, Sentry, i18n* Mar 2025 – Present
- Designed and launched a modern, performant fountain pen and ink wiki with a public homepage and waitlist
- Built dynamic brand and product pages with Wikipedia API, support for variants, and internationalization
- Implemented production-grade tooling: Sentry for monitoring, Arcjet & Clerk for auth/security, Codecov + Checkly for testing/coverage, Better Stack for observability, Crowdin for translations, and Vercel for deployments

Electric Skateboard RGB Controller | *ESP32, KiCAD, Buck Converters, WLED* Jan 2024 – Dec 2024
- Designed PCB in KiCad to drive and control ARGB LEDs using ESP32 and internal 36V battery
- Assembled PCB using reflow oven, integrated WLED for smartphone control, & published schematic on GitHub

Technical Skills

Languages: Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, Rust, SystemVerilog, MATLAB, Bash
Frameworks: React, Next.js, Node.js, Express.js, FastAPI, Vue.js, jQuery
Developer Tools: Git, Docker, Linux/Unix, Kubernetes, ArgoCD, Grafana, Jupyter, Virtuoso, Quartus, Verilator
Libraries: pandas, NumPy, Matplotlib, PyTorch, Scikit-learn, SciPy