Eduard Tanase

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Dual Citizen – USA, Romania

EDUCATION

Purdue University — West Lafayette, IN
B.S. + M.S. in Computer Engineering with Honors, GPA: 4.0/4.0 — *Aug. 2022 – May 2027*
- **Concentration:** Artificial Intelligence & Machine Learning
- **Affiliations:** Co-Founder @ Romanians of Purdue, VP @ Purdue IEEE, Data Science Lead @ Purdue IEEE SMC
- **Study Abroad** @ National University of Singapore (NUS)

EXPERIENCE

ECELabs @ Purdue — West Lafayette, IN
Software Engineer (Part-Time) — *June 2024 – Present*
- Led student team developing digital design educational platform (used by 300+ students) in Vue.js + FastAPI.
- Introduced CI/CD pipeline, automated tests, and full-stack error monitoring for maintainable deployments.
- Designed and developed file manager, code editor, project specifications generator, and live FPGA test pages.
- Cut API latency by 97% through backend parallelization and reduced production errors by over 90%.
- Maintained and improved Kubernetes + Docker Compose microservices architecture, improving uptime by 80%.

Nano Neurotechnology Lab @ Purdue — West Lafayette, IN
Undergraduate Researcher — *Jan. 2024 – Present*
- Trained and benchmarked classical ML models (SVM, Random Forest, Gradient Boosting) and deep architectures (CNNs, RNNs, LSTMs, GRUs, InceptionTime, ResNet, TCN) on mouse neural data using cross-validation.
- Developed temporal (1D) and spatiotemporal (3D) CNNs in PyTorch for neural spikes, local field potential (LFP), and traveling wave signals, outperforming existing architectures and achieving 80% accuracy.
- Architected training pipeline, facilitating rapid training and benchmarking of novel and existing models.
- Co-authored neuroscience conference presentations (SfN 2024, Cosyne 2025) and publication manuscript.

Leidos (Dynetics) — Huntsville, AL
Embedded Software Engineer Intern — *May 2025 - Aug. 2025*
- Developed and deployed Python & SQLite data logger and Grafana dashboards (Telegraf/MQTT) in air-gapped Linux environments (RHEL) for live telemetry of radar system, streamlining system tests and improving safety.
- Automated and parallelized test procedures using Python and TCL, reducing cumulative test time by 73%.
- Designed, implemented, and tested serial sensor drivers in FreeRTOS (C/C++) and VHDL.

PROJECTS & LEADERSHIP

PointOrchard | *Next.JS, React, Postgres, Clerk, Drizzle ORM, Sentry, Fintech* — Jun. 2025 – Sep. 2025
- Developed and deployed credit card search and comparison tool, reached 2,000+ visitors in 20 days.
- Implemented edge caching, error monitoring, user analytics, OAuth authentication, and CI/CD pipeline.

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.

Purdue IEEE Student Branch | *Vice President* — May 2024 – Dec. 2024
- Managed 7 technical committees, overseeing over 800 active members as Purdue's largest technical organization.
- Co-Hosted Machine Learning in Finance workshop at Purdue School of Business with 50+ attendees.
- Led data collection, data processing, and model development for EEG-controlled prosthetic hand project.

PUBLICATIONS

Hammad F. Khan, Om T. Kolhe, Meisam Habibi Matin, Eduard Tanase, and Krishna Jayant. *Neural Delay Lines Synchronize Inter-Areal Motor Sequences.* Manuscript submitted for publication, 2025.

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, JavaScript/TypeScript, HTML/CSS, Rust, SystemVerilog, MATLAB, Bash
Frameworks: React, Next.js, Node.js, Express.js, FastAPI, Vue.js, jQuery, Flask, MongoDB, SQLite, Postgres
Developer Tools: Git, Docker, Linux/Unix, Kubernetes, ArgoCD, Grafana, Jupyter, AWS, Cursor, Claude, Figma
Libraries: pandas, NumPy, Matplotlib, PyTorch, Scikit-learn, SciPy, Vite