Daniel Philipov

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EDUCATION

University of Illinois at Urbana-Champaign ***Aug 2023 – May 2027***

- B.S. in Computer Science, B.S. in Physics, Minor in Astronomy GPA: 4.00/4.00
- *James N. Snyder Award for Scholastic Achievement, 2025*
- Coursework: Machine Learning, Computer Vision, Data Structures, Algorithms, NLP, Computer Architecture, Operating Systems, Compiler Construction, Quantum Computing, Game Dev, Statistics

Thomas Jefferson High School for Science and Technology ***Aug 2019 – Jun 2023***

- Advanced Studies Diploma GPA: 4.42/4.00
- Coursework: AI, Machine Learning, Quantum Computing, Robotics, Electronics, Astronomy Research

SKILLS

Code Languages: Python, C, C++, Zig, Rust, CUDA, Java, JavaScript, Docker, LaTeX, Haskell, Nix, OCaml
Frameworks: HuggingFace, PyTorch, TensorFlow, Tk, React, Flask, QEMU, Qiskit, AstroJS

EXPERIENCE

Google @ Sunnyvale, CA — *Software Engineering Intern* ***May 2026 – Aug 2026***

- Improving performance and efficiency of GMail's spam detection.

Conversational AI Lab @ UIUC — *Student Researcher* ***Jan 2024 – Present***

- Train LLM Embodied Agents for dialogue-based task execution with user feedback.
- Lead co-author on paper accepted to NeurIPS 2024 Open World Agents Workshop. *Summer 2024*
- *Best Application Award* — 2024 Michigan Embodied AI Symposium.
- Developed demo for DARPA — importance of friction in embodied agents. *Summer 2025*
- Designed Multi-Modal User Simulator for training and evaluating embodied agents.

National Center for Supercomputing Applications — *Student Researcher* ***Aug 2024 – May 2025***

- Students Pushing Innovation Program (SPIN), presented at annual NCSA Student Conference.
- Developed VLM-based assistant for modifying PowerPoints using visual cues and user instruction.

CS 128H: Intro to CS II Honors (*Rust*) @ UIUC — *Lead Course Assistant* ***Jan 2024 – Jan 2026***

- I lectured, graded, and mentored students, held office hours, and managed CAs.

PROJECTS

Zig OS – [Zig, QEMU, Asm] ***May 2025 – Present***

- Currently developing a RISC-V operating system in Zig, with a focus on simplicity and performance.

Illinix 391 – [C, QEMU, Asm] ***Mar 2025 – May 2025***

- Developed RISC-V operating system, with sound driver, network stack, shell, filesystem, and DOOM.
- Implemented preemptive multitasking, paged virtual memory, and system calls for user programs.
- Collaborated with a team of 3 to develop a complete operating system, and won 2nd in the design competition.

RESEARCH PAPERS

Simulating User Agents for Embodied Conversational AI — *Philipov, Dongre, Tur, Hakkani-Tür* ***2024***

- **Presented:** NeurIPS 2024 Open World Agents Workshop, Michigan Embodied AI Symposium (award)

Generating Exoplanet Artist Renditions using GAN Models (Senior thesis) — *Philipov* ***2023***

- **Presented:** Junior Science and Humanities Symposium, TJ Symposium to Advance Research

HACKATHON AWARDS

Washington Post Prize *HackTJ 9.0, 2022*
Best Developer Tool *HackIllinois, 2025*
1st Place *HackIllinois, 2024*
1st Place *AgentOpsAI HackNight, 2025*
1st Place *MechMania AI 31, 2025*
1st Place *MechMania AI 30, 2024*
3rd Place *MechMania AI 29, 2023*