Dominic Galgano

Golden, CO | (303) 507-4437 | dominicgalgano@gmail.com
LinkedIn: www.linkedin.com/in/dominic-galgano | Website: galganos.us

Education

University of Colorado - Boulder (Graduated 2024)
Bachelor of Science in Computer Science (GPA 3.5/4.0)
- Coursework: System Administration, Network Systems, Datacenter Management, Bio-networks and Graph Theory, Intro Cybersecurity, Intro Quantum Computing, Intro Robotics

Skills

Programming Languages:	Python, Java, Bash Script, C, C++
Network and Security:	OpenSSH, N-Map, DNS, DHCP, PKI, Wireshark
Deployment and Administration:	Linux, Proxmox, Docker, K8s, ZFS, Nginx
Development Tools:	Flask, HTML, CSS, JS, Gunicorn, PostgreSQL, MongoDB, VScode, IntelliJ, git
Other:	Soldering, Hardware Assembly/Repair, CAD, Customer Service

Experience

National Renewable Energy Laboratory (Summer 2024)
LLM Research Assistant
- Built multi-agent LLM graph using LangChain, LangGraph, Python, Docker, and HPC
- Designed multi-agent communication between "expert" LLMs based on Llama3 8b and 70b
- Worked with team members to integrated fine-tuned model and RAG into multi-agent system
- Tested system against existing benchmarks like BIG-Bench and advanced power systems problems
- Improved Llama 3 domain specific responses and problem solving to near equivalence of state-of-the-art-models such as GPT-4mini and Claude 3.5 Sonnet

FESTO (Fall 2023-Spring 2024)
Capstone Team Member
- Developed a Physically Unclonable Function(PUF) in C to take in several samples of random 128-bit strings and determine stable bits to generate a unique device identifier(UDID)
- Extracted raw memory values on startup from DRAM of FESTO's PLC and Raspberry Pi, which varied based on non-replicable miro-defects in each devices' hardware
- Helped team develop online portal for uploading and verifying UDIDs using HTML, JS, and Web3
- Stored UDIDs on Ethereum blockchain using Solidity contracts
    * Due to internal complications FESTO disengaged from the project before development and testing began; however, the project still placed 2nd out of all capstone software projects

References

Rishabh Jain
NREL / PSEC Researcher
www.linkedin.com/in/risjain