

YASH LALA

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Palo Alto, CA

EDUCATION

UCLA B.S. in Computer Science
BASIS Independent Silicon Valley High School

GPA: 3.782, 2018 - 2022
GPA: 3.9, 2014 - 2018

TECHNICAL SKILLS

Computer Languages	C, Python, Shell, Java, Go, C++, OCaml, SQL.
Software & Tools	Ansible, Git, GCP, etc. Strong focus on kernel development and debugging.

PROFESSIONAL EXPERIENCE

Pringle Lab, Stanford Genetics Department
Undergraduate Research Intern

June 2017 - August 2017

- Tested for selective lectin protein binding to various algal species, in order to understand the chemical processes behind coral bleaching. Developed a microscopic cell image recognition+counting program for use in algal haemocytometry.

Veritas Technologies LLC
SDE Intern

June 2021 - Sept 2021

- Worked on NetBackup Flex platform. Team tasked with implementing automatic compute node discovery and assimilation over a network. Replaced session-based internode communication scheme to an Ansible+HTTP based setup; replaced product-specific software components with platform-agnostic versions.

SOLAR Lab, UCLA CS Department
Student Researcher

June 2022 - Present

- Independently developed patches for the Linux kernel's swap subsystems, with the goal of merging these changes upstream. The patchset allows for per-cgroup control of active swap devices. The changes have positive implications for swap throughput – but more importantly, they make it easy to develop and control frontswap-based remote memory systems.
- Prior to full-time employment: profiled swapout latencies for RDMA-based remote memory systems under various workloads and prefetch strategies. Worked on improving the Linux kernel's physical memory page allocation latency via asynchronous RCU-based refill of the per-cpu page lists.

PROJECTS

bNEAT

September 2017 - May 2018

- Worked on developing an improved version of the Neuroevolution of Augmenting Topologies algorithm by recognizing and cloning distinct neural "subnets". Resulting algorithm runs through the initial learning phase faster than 'vanilla' NEAT.

Junknet: Distributed Compilation Framework

January 2021 - March 2021

- Worked on developing a distributed computing framework for a home environment. Project analyzes Makefiles and runs them in a distributed manner over available LAN devices. Network and device failures are tolerated.

GRU4RecBE: Session Based Recommendations with Features

March 2021 - June 2021

- Developed session-based recommendation system which extends the GRU4REC architecture with rich item features extracted from the pre-trained BERT architecture. Non-attentive model outperforms state-of-the-art session-based models over the benchmark MovieLens 1M and MovieLens 20M datasets. Paper accepted to AAAI Student track.