Priyal Suneja

Education

Sept '17 - BS Computer Science, UC San Diego, La Jolla.

June '21 *GPA:* 3.8/4.0

Research

April '20 - Undergraduate Researcher, SysNet, UC San Diego - CSE Department.

present Advisor: Geoff Voelker

- Exploring the benefits and overheads of using Non Volatile Memory for operating system data structures
- Making the Linux page cache persistent by moving it from DRAM to NVM
- Using the Intel MPK functionality to prevent corruption of persistent page cache from stray writes
- Quantifying the performance impact of using NVM with Intel MPK for the linux page cache with micro and macro benchmarks
- Sept '18 Student Researcher, ERSP, UC San Diego CSE Department.
 - June '19 Program: Early Research Scholars Program, a team-based research apprentice experience for computer science and engineering majors in their second year of the program

Advisors: Sorin Lerner, William Griswold

- o Project focused on crowdsourcing Software Verification by gamifying the resource intensive problem of loop invariant identification.
- Ported "INVGame", a single-player Facebook game, to a mobile platform, and made it multiplayer using Unity and C#
- o Studied the difference in time taken per level and quality of data generated in both games to determine user participation
- Poster presented at the UCSD CSE Research Expo

Teaching

April '19 - Computer Science Tutor, UC San Diego - CSE Department, La Jolla, CA.

- Present o Tutored for 6 quarters on topics such as Operating Systems, Systems Programming, Discrete Mathematics and Intro to CS for an average class size of 200 students.
 - Duties include:
 - assisting students by debugging assignments and clarifying concepts
 - grading homeworks and exams
 - answering questions on an online forum
 - scheduling lab hours for the teaching staff

Industry

June '20 - **Software Engineering Intern**, *Google*, Remote.

- Sept '20 O Determined the ideal WebAssmebly Runtime for porting networking code by researching differences such as exposed ABIs and code reusability among the various available runtimes
 - Resolved the limitations of standalone WebAssembly through cross-platform communication between NodeJS and WebAssembly runtimes using Embind
 - Emulated a subset of POSIX networking functionality using NodeJS to allow porting unchanged C/C++ code to WebAssembly

June '19 - **Software Engineering Intern**, *ServiceNow*, San Diego.

- Sept '19 O Built a testing framework to locate the point of failure in the data pathway built using Kafka and Confluence
 - o Interfaced between the Enterprise platform (Glide) and a third party queuing service (Kafka) to test the data pathway between a producer and consumer set
 - Integrated an interactive UI with a self-built testing framework using AJAX and Java

Service

Nov '20 Student Volunteer OOPSLA '20

2020/21 President Women In Computing @ UCSD

Vice President (2019/20)
Outreach Co-Chair (2018/19)

2019/21 Celebration of Diversity Lead UCSD CSE Department

— Awards

Dec '20 SIM San Diego Academic Scholarship Society for Information Management, San Diego

Jun '20 Excellence in Leadership and Service UCSD CSE Department

Sept '19 GHC Scholar Anita B.Org

Jun '19 Excellence in Contributions to Diversity UCSD CSE Department

Tools & Languages

Java, C, C++, Go, Assembly, Latex, Git