Igor Telnykh

Software Engineer, Product Development

igorstelnykh@gmail.com
https://www.linkedin.com/in/igor-telnykh-977522195
2136778416
New York, NY

Work Experience

Software Engineer, Product Development Aug 2022 - Present

Intel Corporation | Santa Clara, CA

- Significantly improved silicon validation data accessibility by engineering an internal REST API microservice with Flask, supporting ~200 daily active users while integrating MongoDB and PostgreSQL databases and Azure-based authentication
- Created ETL data pipeline processing 100+ GB daily of critical silicon validation data from engineering testers to a MongoDB database using SMB protocol for file transfer
- Accelerated silicon validation data collection by 4x across 3 products by implementing a multi-threaded Python application integrating with Intel's engineering tester API for real-time data processing
- Reduced functional validation time by 50% during critical silicon bring-up by implementing a parallel stream data collection, analysis, and debug framework leveraging Python's multiprocessing capabilities
- Strengthened emulation failure prediction tool reliability by spearheading a unit testing initiative to improve code coverage from 23% to 90%

Thermal Power Management Engineering Intern Jun 2021 - Dec 2021

Intel Corporation | Hillsboro, OR

- Resolved a gap in testing coverage by developing a framework that simulates a video editing workload and collects CPU power output data using Intel's Thermal Analysis Tool under varying PL1 levels
- Identified best performing RAM when used with Intel's silicon by collecting PCMark and 3DMark benchmark scores under productivity, gaming, and content creation workloads with RAM from 3 different brands

Projects

MapReduce Implementation

- Designed fault-tolerant MapReduce implementation achieving 200MB/s throughput using asynchronous gRPC C++ API and Protocol Buffers for high-performance serialization
- Engineered multi-threaded master node managing 50+ concurrent tasks with worker pool management and fault-tolerant task recovery mechanisms

Multithreaded GetFile Server

- Designed a multi-threaded server utilizing a custom GetFile protocol to serve static files over TCP sockets using C's sockets library, supporting both IPv4 and IPv6 protocols
- Improved server throughput by 62% by enabling concurrent request processing and file transfer by using a boss-worker model implemented using C's pthreads library

Core Skills

Python, C++, C, SQL, Linux/Unix, Git, Github, Flask, PostgreSQL, MongoDB, gRPC, Protocol Buffers, Microsoft Azure, AWS, Docker

Education

Georgia Institute of Technology

Master of Science, Computer Science *GPA: 4.0*

University of California, Los Angeles (UCLA) Jun 2022

Bachelor of Science, Electrical Engineering *GPA: 3.71*