YASH ANAND

Software Engineer

I am a seasoned software engineer with a passion for web applications, programming languages and systems. I have delivered high-quality solutions for both enterprise and startups. With a Master's from a top CS school, brandishing a skillset that cuts across all aspects of the field, I'm poised take on any software engineering challenge headed my way.

HONORS -

Director's Scholarship Carnegie Mellon Univ. (2022)

Special Recognition Award Shell (2022)

VP CIO Award Shell (2021)

Service Recognition Award Shell (2021)

EDUCATION -

Graduating in Dec 2023

Master of Software Engineering Carnegie Mellon University, School of CS CGPA: 3.9/4 • Pittsburgh, PA, U.S.A

Graduated in May 2019

Bachelor of Technology in Information Technology Vellore Institute of Technology CGPA: 8.5/10 • Vellore, India

Courses (Carnegie Mellon Univ.)

Compiler Design, Software Architecture, Intro to Computer Systems, Web Apps, Formal Methods, Advanced Formal Methods

Experience (Carnegie Mellon Univ.)

Teaching Assistant for Web Apps Development Course Developer for Web Apps Development Teaching Assistant for Software Architecture

EXPERIENCE

Jul 2019 - Jul 2022

Software Engineer Shell

Bangalore, India (On-site)

Sep 2018 - Jul 2019

Lead Software Developer Vicara

Vellore, India (Part-time, Hybrid)

Feb 2017 - Feb 2019

Software Development Intern AppSecure

Vellore, India (Part-time, Remote)

- Improved performance (latency) of org-wide skills management application by 70%.
- Implemented mission-critical software for managing projects, resources, and security incidents across the organization and pioneered a CI/CD initiative for the platform.
- Winner of org-wide VP CIO Award in May 2021, and Service & Special Recognition Awards.
- Solely developed the desktop user interface for a wearable gesture controller called Kai.
- Lead software team for a product that raised over \$100k via crowdfunding on Indiegogo.
- While simultaneously pursuing an undergraduate degree, built the entire web eco-system including UI component libraries, product website, auth intermediary, and many more.
- Single-handedly developed and designed multiple security-based SaaS apps during the start-up's foundational years while simultaneously pursuing an undergraduate degree.
- Pivotal work that contributed to start-up's listing in Forbes 30 under 30 Asia in 2017.
- Built a web app (rakshak.io) that was acclaimed at the RISE Conference in 2018.

PROJECTS

Carnegie Mellon • 2023

WASM Dynamic Analysis WebAssembly, Virgil

Carnegie Mellon • 2023

C Compiler

OCaml, x86, WebAssembly

Carnegie Mellon • 2023

Dynamic Memory Allocator C, Linux API

Carnegie Mellon • 2022

Chesster

JavaScript, Django

Vicara • 2019

Kai Control Center

Angular, JavaScript, Electron

- Augmented dynamic analysis and instrumentation tools to support displaying metrics alongside source WASM bytecode for a research WebAssemble engine called Wizard.
- Experimented and evaluated performance overhead of instrumentation in the engine.
- Within a semester, wrote a memory-safe optimizing compiler for a subset of the C language (called CO) achieving performance on par with the industry-standard GCC (-O1).
- Features included strings, function pointers, arrays, structs, and a WebAssembly target.
- Implemented a high-performance dynamic memory allocator surpassing the efficiency of C's standard malloc package for a diverse set of program traces.
- Achieved rank 1 performance & utilization in 15213 summer '23 class of 150 students.
- In just a few days, built a fully-functional online chess multiplayer game that featured in-game spectators, chat and a global live feed of top-spectated games.
- Challenged ourselves by using vanilla JavaScript for complex asynchronous interactions.
- Solely built a cross-platform desktop app for a wearable gesture controller called Kai.
- Product (Kai) eventually raised over \$100k via crowdfunding on Indiegogo.
- Built critical modules to deliver software patches to devices's entire software eco-system.

Top Skills Tools/Technologies Languages **Functional Programming** Web Applications C / C++ JavaScript x86 Assembly Vim React Systems Programming Dynamic Analysis WebAssembly **OCaml** Python Angular Diango