

YASH ANAND

Software Engineer

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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 to 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

Courses (Carnegie Mellon Univ.)
Compiler Design, Software Architecture,
Intro to Computer Systems, Web Apps,
Formal Methods, Advanced Formal Methods

Graduated in May 2019
Bachelor of Technology in Information Technology
Vellore Institute of Technology
CGPA: 8.5/10 • Vellore, India

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)

- 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.

Sep 2018 - Jul 2019
Lead Software Developer
Vicara
Vellore, India (Part-time, Hybrid)

- 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.

Feb 2017 - Feb 2019
Software Development Intern
AppSecure
Vellore, India (Part-time, Remote)

- 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

- Developed dynamic analysis and instrumentation tools for a WebAssembly engine.
- Submitted a paper to ASPLOS titled "Flexible Non-intrusive Dynamic Instrumentation for WebAssembly" evaluating several techniques against our novel implementation.

Carnegie Mellon • 2023
C Compiler
OCaml, x86, WebAssembly

- Within a semester, wrote a memory-safe optimizing compiler for a subset of the C language (called C0) achieving performance on par with the industry-standard GCC (-O1).
- Features included strings, function pointers, arrays, structs, and a WebAssembly target.

Carnegie Mellon • 2023
Dynamic Memory Allocator
C, Linux API

- 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.

Carnegie Mellon • 2022
Chesster
JavaScript, Django

- 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.

Vicara • 2019
Kai Control Center
Angular, JavaScript, Electron

- 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

Web Applications Functional Programming
Systems Programming Dynamic Analysis

Languages

C / C++ JavaScript x86 Assembly
OCaml Python WebAssembly

Tools/Technologies

Vim React
Angular Django