

Syed Zain Raza

syed.m.zain.raza@gmail.com • 917-703-6766 • Greater Boston Area

Portfolio: <https://zainraza.me/> • LinkedIn: <https://www.linkedin.com/in/zain-train/> • GitHub: [tinyurl.com/zain-github](https://github.com/zain-raza)

EDUCATION

M.S. of Machine Learning

Stevens Institute of Technology, 2022 - present

- Goal: to craft infrastructure to produce the rich interplay of **3D computer graphics/vision algorithms**.

B.S. Applied Computer Science

Dominican University of California, 2019 - 2021

- Accelerated 2.5-year program involving **project-based learning** in software engineering and AI/ML.

EXPERIENCE

Software Engineer (**Python/C++**, Java, Three.js/Node.js)

PTC, July 2022 - present

- Standardized logging APIs in leading a major refactor for Onshape R&D (100+ people), to deliver **immediately actionable insights** to engineers and management for root-causing **performance issues**.
- Built a **self-supervised tool** to report **leading indicators** (out of 30+ features) that led to slow performance.

Research Engineering Intern (**TensorFlow**, AWS)

IQ3Connect Inc., Jan. - Jun. 2022

- Prototyped a novel storage solution for **3D web graphics** by utilizing **machine learning techniques**, with the goal of **90% reduction** of memory needed for real-time rendering on mobile displays.
- Conducted a benchmark of several radiance field algorithms that resulted in **time saved** in data collection and **10X speedup of model training**, and wrote custom Python/shell scripts to automate this process.

Teaching Assistant (TensorFlow, FastAPI, **Docker**)

Dominican University of California, Aug - Dec 2021

- Supported 20+ students in an upper-level **deep learning** course, by co-authoring [walkthrough lessons](#) and writing [starter code](#); enabled 100% student pass rate by **overcoming major roadblocks** that arose in-semester.

Open Source Developer Intern, [headsetsGoodbye](#) (Javascript)

IQ3Connect Inc., Feb 2021-May 2021

- Increased FPS by 100X for a **machine-learning-powered video app** by concisely passing TinyYOLO inferences to WebGL; furthered it by delivering a [demo](#) app used to generate interest with prospective clients.

Software Engineer Intern, [Carbon0](#) (**Keras**, Docker, Django)

Carbon0 Games, Aug 2020-Mar 2021

- Acquired 500+ users over 90 days for a green-field MVP in a fast-paced, **sustainability** startup.
- **Independently researched**, implemented, and deployed a [plant disease classifier](#) with 89% accuracy, accelerated the company's progress towards an acqui-hire within 12 months.
- Merged 100 pull requests for a team of six developers **without hassle** by utilizing automated testing with CI.
- Streamlined environment setup using Docker, decreasing friction for OSS contributors.
- Ingested a training dataset of 87,000 RGB images by using TensorFlow APIs to minimize memory usage.

VOLUNTEER EXPERIENCE

Peer Mentor, Student Leader

Make School, 2020-2021

- Facilitated discussions with 30+ peers to instill great work-life balance habits, based on *Getting Things Done*.
- As an [extracurricular](#), I hosted one of the ["20 Best Computer Vision Podcasts"](#), as ranked by Welp Magazine.

TECHNICAL SKILLS

Productive - Python, Git, JavaScript, AWS (S3, EC2, IAM)

Beginner - Three.js, OpenCV, C++, Java