Karthik Iyer

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Roorkee, India

EDUCATION

IIT ROORKEE
B.Tech Chemical Engg. with minors in Computer Science & Engg.
2017-present | CGPA: 8.92

PROFILE

Github:// **KarthikRIyer**
LinkedIn:// **karthikriyer2**
Portfolio:// **cgknowhow**

SKILLS

LANGUAGES
C/C++ • JAVA • Python • Swift

PACKAGES
Android Studio • Atom • Git • Blender Adobe Premiere Pro • Adobe After Effects • Git

ADDITIONAL COURSES
Short Course in Film Appreciation by FTII

ACCOMPLISHMENTS

SOFTWARE PRODUCTATHON E-SUMMIT'20
February 2020
- Secured 1st position
- Built a platform to track the condition of Autistic children using games.

HACK IN THE NORTH 4.0
2019
- Secured third position

AIST REAL STEEL VIDEO CONTEST
2019
- Secured first position.
- Created a video educating people about new developments in steel making technology.

KVPY SCHOLARSHIP AWARDEE
2017
- All India Rank 618

EXPERIENCE

GOOGLE SUMMER OF CODE
Academy Software Foundation | Software developer
June 2020 – August 2020 | Remote
- Worked on the OpenTimelineIO project.
- Implemented predicates from Allen's Interval Algebra.
- Wrote C and Java bindings for the C++ core of the library.
- Wrote unit-tests for C using gtest and for Java using JUnit5.

JPMORGAN CHASE & CO. | Summer Intern
June 2020 – July 2020 | Remote
- Developed a POC for conversion between Indian Sign Language and English.
- Used flask to develop a REST API. Deployed the backend on AWS EC2.
- Developed an Android App for the frontend using MVVM architecture and Jetpack architecture components.

TENSORFLOW | Google Code-In Mentor
February 2019 – July 2020 | Remote
- Mentored student of ages 13-17 for the SwiftPlot Data Visualization library as a part of the Google Code-In program.

GOOGLE SUMMER OF CODE TensorFlow | Software developer
May 2019 – August 2019 | Remote
- Developed a cross-platform Data Visualization library (similar to matplotlib) in Swift.
- Implemented AGG & SVG rendering backends in the library with the capability to implement other backends in the future.
- Added a graphics output library to swift-jupyter using pure Swift. This library generates jupyter messages & sends it to the jupyter-kernel to display images in base64 format.

NAVISMART Android Developer
December 2018 – March 2019 | Remote Intern
- Worked on an Android App, that enables users to book marinas for their luxury boats.
- Built the app using the latest architecture components in Android Jetpack with Firebase and Cloud Firestore for backend.

UNDERGRADUATE TEACHING ASSISTANT
Academic Reinforcement Program - IIT Roorkee
January 2018 – May 2019
- Undergraduate Teaching Assistant for Fluid Dynamics. Mentored 30 students for the course throughout the semester.

PROJECTS

RAYTRACER
September 2019 – present
- Developing a simple C++ Path Tracer for learning. Based on Raytracing in One Weekend series and PBRT.
- Implemented multithreaded and tiled rendering.
- Mesh loading using assimp.
- Denoising using Intel's OpenImageDenoise library.

OFFICIAL SECURITY APP OF IIT ROORKEE | TEAM LEAD

July 2020 – present | Roorkee, India

- Lead the development of the security app for IIT Roorkee.
- This app digitizes the logging of entry into campus and other checkpoints on campus.
- Coordinating with the team of Dean SRIC for the development & review process of the app, its web portal and backend.

CONGNIZANCE 2019 | ANDROID DEVELOPER

January 2019 – March 2019 | Mobile Development Group IITR

- Developed the official Android App for Cognizance 2019, the annual tech fest of IIT Roorkee.
- The app enabled users to register for events & make payments. It is rated 4.6 & has 500+ downloads on Play Store.

3D GAME OF LIFE

March 2019 | Mobile Development Group IITR

- Made a 3D implementation of Conway's Game of Life using a Python Script in Blender.
- Displayed the project in Srishti 2019, the annual technical exhibition of IIT Roorkee.

SCROLLYTELL FLUTTER

October 2019 - December 2019 | Mobile Development Group IITR

- Led a team of developers to create a cross platform scrollytelling library for Flutter.

LEADERSHIP

MOBILE DEVELOPMENT GROUP IITR

HEAD OF TECHNOLOGY
April 2020 – present | Roorkee, India
DEVELOPER
February 2018 – April 2020 | Roorkee, India

- Involved in developing applications for campus students as well as open to Internet.
- Conducted meetings, workshops and lectures on various topics including Computer Graphics, Android Development & Open Source development amongst others.

CINEMATIC SECTION IITR

VIDEO EDITOR
August 2017 – May 2019 | Roorkee, India

- Edited various short films & teasers and also created motion graphics for them.
- Edited the campus tour of IIT Roorkee. The video has 940K+ views on YouTube.

MENTOR | WINTER OF CODE 2018 & SEASON OF CODE 2019

MOBILE DEVELOPMENT GROUP IITR
December 2018 | October 2019 - January 2020 | Roorkee, India

- Mentored a group of students to learn the basics of Android Development and to complete their projects