



# Vasan Routh

## Full Stack Game Developer, Specializing in Networking

Love coding and playing games:) I am a versatile Game Developer with 5+ years of experience. Proficient in most major programming languages and comfortable picking up others if I haven't explored them already. I have released multiple games and I have had the opportunity to lead projects and manage teams of developers (Programming and cross-discipline). I enjoy sharing knowledge and having a meaningful impact on the projects I'm part of. [\[View my Unabridged Portfolio\]](#)



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## TECHNOLOGIES

|                     |  |                                    |  |
|---------------------|--|------------------------------------|--|
| <b>General</b>      | C, C++, C#, JavaScript (ES4-ES2022), TypeScript, Java, Python, SQL, Bash, Android, HTML, CSS, PHP, Solidity              | <b>Games Engine &amp; Graphics</b> | Unity (5+ years), UE5(1+ year), OpenGL, WebGL  |
| <b>Art &amp; UI</b> | Blender(modeling, texturing, animating), Krita, Photoshop, Illustrator, UI (Adobe XD, Figma), Substance Painter, Alchemy | <b>Cloud &amp; Networking</b>      | AWS, Azure, Google Cloud Console, Firebase, Playfab, MongoDB, MySQL, PostgreSQL, Redis, Docker, ExpressJS, NodeJS, Socket.IO, Photon, Mirror |



## WORK EXPERIENCE

### Senior Gameplay Engineer

#### MightyBeast Studios

07/2023 - 11/2023

Unity, C#, NodeJS, AWS tools (Cognito, Lambda, DynamoDB, Gamelift), Mirror

Dubai, UAE [Remote]

##### Achievements/Tasks

- Worked on an MMORTS game made with Unity (Hosting map servers. Buildings movement, Troop training, Combat mechanics..etc),
- Implemented a battle formula & simulator that takes various factors into account when two/ multiple player engages in same battle,
- I mostly worked deploying the backend architecture networking, server, and database side of this game in AWS, This version of the game can host up to 80K players in one map,
- There are a lot of thinking and planning gone into building this game from scratch, [read more about this here.](#)

### Gameplay Engineer

#### Daceg.Ltd

06/2022 - 04/2023

Unity, C#, ExpressJS, NodeJS, Photon Pun, Playfab, CloudRun, Moralis SDK, EtherJS, Solidity, Elasticsearch, Unity Cloud Build(CI/CD)

London, England [Remote]

##### Achievements/Tasks

- Tasked to build a mix of Card + RTS genre-type mobile games for both Android and IOS platforms, the game involves training troops and going for raids against other players like a typical RTS game,
- Automated the build and release by doing them cloud using Unity Cloud Build, Managed the team using Scrum by breaking down a project into smaller, manageable tickets, and Developed the server-side components to enable blockchain features,
- Collaborated closely with artists and designers to integrate assets and achieve a visually stunning game world,
- I have also implemented a lot of other modules like a notification system, loot boxes, settings panel, global chat, leaderboard, viewing player profile, Friends... etc [\(View the game\)](#)

### Lead Game Developer

#### Creatr Studios Inc.

03/2022 - 06/2023

Unity, C#, GraphQL, ExpressJS, NodeJS, Photon Pun, Playfab, CloudRun, Enjin SDK, Facebook SDK, Azure VM, LeanTween

Toronto, Canada [Remote]

##### Achievements/Tasks

- Worked on this 8-bit style multiplayer treasure-digging game, that has multiple game modes, like memorizing shapes, and solving math in a PVP environment, where the quick solver gets to dig faster and reach the treasure at the bottom,
- The game interacts with Enjin cloud using GraphQL queries and mutations, these are performed safely in the Google Cloud Run(NodeJS) platform, and player data is stored in Playfab,
- The game uses the photon cloud as a networking framework that transmits player inputs through RPC calls to keep the game state in Sync, these calls are also backed up in the cloud so that even if both players quit and rejoin the room will still be live. [\(View the game\)](#)



## WORK EXPERIENCE

### Game Designer & Developer

FrostDrakeGames [↗](#)

12/2020 - 02/2022

Chennai, India

Unity, C#, GraphQL, NodeJS, Photon Network, Playfab, CloudRun, Enjin SDK, Facebook SDK, Blender, Substance Painter, Alchemy

#### Achievements/Tasks

- Created a turn-based strategy game built for mobile devices called [Gambit](#). Which also has modes like 1v1 skill-based bet matches, The Game runs on Unity and makes use of Playfab to store player data, authentication(Facebook, Play games), analytics,
- I created couple of 3D models with animation in Blender, for Stylized texturing used Substance Painter, Alchemy ([ArtStation](#)).
- Created a [Kickstarter](#) campaign and used Unity Cinemachine to shoot a perfect trailer ([View trailer](#)) for this game and did the postprocessing sound effects in AfterEffects. ([View gameplay](#))

### Unity AR Developer

JIPMER [↗](#)

02/2019 - 08/2020

Pondicherry, India

Unity, C#, Firebase, Python, Vuforia SDK, ARCore

#### Achievements/Tasks

- Developed an Indoor navigation AR mobile application that uses RSSI WiFi fingerprinting to navigate users to the selected destination without a need for GPS,
- Engineered efficient navigation by implementing the A\* pathfinding algorithm using C#, optimizing route calculations for dynamic indoor environments, and leveraging Firebase's real-time database to enable seamless data synchronization,
- Orchestrated the technical aspects, leading the team through AR implementation, algorithm integration, and Firebase utilization, ensuring a cohesive and functional end product.

### Full-stack web developer

Ignite Skylabs [↗](#)

08/2017 - 08/2020

Pondicherry, India

HTML, CSS, ReactJS, NodeJS, Azure, Firebase, PHP, MySQL, MongoDB, Java, Android, Python, Flask, Django, C#, Fusion360, Verilog HDL

#### Achievements/Tasks

- This is an LLC that I formed while in college. Where I created web and mobile apps for startups and corporations like NCR, GE India and HP India..etc with a team of 3,
- Some of my commercial projects include building a [Automobile Tracking App](#), [Education Apps](#)..etc.,
- I Own 10+ IPs for some of the embedded projects like (IV Drip monitoring systems, Limb Reconstruction Systems,.. etc). One such product won a National award from the Gov of India.



## OTHER PROJECTS

Bubble Shooter (09/2020 - 10/2020) [↗](#)

Tricky Bounce - Brick Breaker (10/2020 - 11/2020) [↗](#)



## EDUCATION

### Bachelor's Degree in Electronics & Communication Engg.

Pondicherry University

05/2017 - 06/2021

Pondicherry, India

### Highschool Diploma in Computer Science

AHSS, Pondicherry

03/2015 - 03/2017

Pondicherry, India



## CERTIFICATIONS

C and C++ Programming (12/2018 - 01/2019) [↗](#)

A advanced course on OOPs and DSA.

AWS in Multiplayer Games (10/2023 - 10/2023) [↗](#)

Course on Using DynamoDB, Cognito, and Lambda to build a basic player management system.

AWS Certified Developer Associate 2023 (08/2023 - Present)

Course on using AWS tools and insights of each service which is very helpful for a developer for real world implementations.