

Amrit Amar

- Technical contributor who loves learning about and solving challenging problems.
- Passionate about building software that helps people solve real problems in their lives.
- Drawn to systems-level problems involving cross-functional collaboration across several disciplines.
- Thrives in high-ambiguity situations and enjoys early-stage design and development.

Work Experience

Data Engineer

Inflexion Games

📅 April 2023 – Current

Part of the Analytics Game Services team to lead, design and maintain data pipelines for a live-service game called Nightingale.

- Worked in Unreal Engine 5 with C++ to implement features and support batch and real-time telemetry pipelines for analysis.
- Used Google Cloud technologies with DBT to set up buckets, telemetry endpoints, cloud-run services, and Dataflow pipelines.
- Performed Analytics reporting from BigQuery tables into reports during playtests and release with over 500k players.
- Collaborated with several gameplay teams to overhaul and incorporate data into their systems to improve the game design process and helped steer company culture to be data focused.

Software Engineer

Meta Platforms, Inc.

📅 August 2020 – January 2023

Worked as part of the Reality Lab's Surreal research team on an AR device, Project Aria, for contextualized AI and live mapping research.

- Designed and developed several key features such as telemetry, provisioning (managed and released over 3000 devices), audio, app-device communication, device streaming over Wi-Fi, and multi-sensor time-domain synchronization.
- Maintained a custom Android (AOSP) codebase working with native C++ and Java services and wrote Python and Bash scripts for testing various aspects of the device.
- Worked cross-functionally with product designers and managers, operation teams, and data scientists to resolve device bugs and tickets from users.

Student Researcher

Cornell University, Cornell Graphics and Vision Group

📅 October 2019 – June 2020

Worked with Professor Steve Marschner and Professor Bruce Walter on "Exploring photo-realistic material rendering in VR" as my Master of Engineering final project.

Contact Info

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Skills

C++ • Java • Python • C#/.Net •
JavaScript • Jupyter • Bash •
Unix/Linux • GitHub • Unity Game
Engine • AOSP • SQL • DBT • GCP
• AI/ML

Computer Graphics and Shaders •
Data Science • AR/VR Design •
Artificial Intelligence • Machine
Learning • Game Design • Robotics
• 3D Modelling • Technical Writing
• Teaching and Mentoring

Education

Master of Engineering (M.Eng.),
Computer Science

Cornell University

📅 August 2019 – May 2020

Bachelor of Science (B.S.),
Computer Science

Cornell University

📅 August 2016 – December 2019

- Used Unity and GLSL to implement the ellipsoid shading model, a more realistic model than the standard shading models present in graphics applications, particularly with anisotropic surfaces.
- Built an interactive VR environment and tested the shading model by comparing the look of various materials in VR to their real-life counterparts under different lighting conditions.

Software Engineer Intern

Facebook

📅 May 2019 – August 2019

Joined the Facebook Video Livestreaming team.

- Implemented MPEG-DASH ingested live video feed for livestreaming using a combination of C++, Java, and Python to improve reliability for live streaming in 3rd-world/developing countries.
- Created an end-to-end working prototype that allows the user to go live from the FBLite app.

Software Engineer Intern

LiveLike

📅 May 2018 – August 2018

Worked on creating AR sport viewing experiences.

- Worked with Unity and ARKit/ARCore to create augmented reality sports viewing experiences for mobile devices.
- Devised ways to show live data and statistics in augmented reality for a major global racing sporting organization.
- Designed and implemented a gamification social platform with friends, chat rooms, and mini games.

Robotics Software Engineer

Cornell University, Robotics Personal Assistants Group

📅 April 2017 – January 2018

- Worked with Professor Ross A. Knepper's research group on creating a Solar-Powered Autonomous Blimp capable of independent flight for extended periods of time.
- Developed higher-level planning algorithms, UI design, and designed communication nodes using ROS.

Augmented Reality Developer

Beyond One

📅 July 2017 – October 2017

- Participated in a VR Summer Bootcamp hosted by DIVR Edu, a startup from Beyond One that creates educational content to teach students in schools.
- Designed VR/AR projects and developed CurioPets, a multiplayer "Pokémon Go + Tamagotchi in AR" iOS game using ARKit.

Awards

- Top Achiever Scholar from Botswana.
- Cornell Computer Science Student Recognition Award for my work at the *Association of Computer Science Undergraduates* (ACM Chapter), 2019.
- Most Innovative Game at the Cornell Games Showcase for *OutOfSync*, 2018.
- Won the "Best Game Programmer in Africa" competitions, 2013 and 2014.
- IT Innovation Award at the *Botho College ICT Linkz Challenge*, 2013.