

# Sahil Ramani

SENIOR SOFTWARE ENGINEER · MACHINE LEARNING & GRAPHICS

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## Summary

With over 12 years of software development experience, including 4 years specializing in machine learning, I am an accomplished software developer with a proven track record of leading teams focused on R&D projects. My expertise lies in building software at the intersection of machine learning and creativity. I am passionate about developing innovative solutions that push the boundaries of what's possible with technology, and I'm always eager to take on new challenges.

## Skills



## Work Experience

### Unity Technologies

Seattle, WA, USA

SENIOR SOFTWARE ENGINEER / SOFTWARE ENGINEERING MANAGER

Aug. 2019 - Present

- Augmented the graphical capabilities at Unity using state-of-the-art ML enhanced rendering techniques.
- Accelerated machine learning training and inference by creating custom GPU kernels/ops and improving training environments.
- Collaborated with several teams at Unity to improve artist and tech art workflows when working with large game worlds with machine learning.
- Worked with program management across rendering and lighting teams at Unity to define roadmaps and visions for ML accelerated lighting & rendering at Unity.
- Led a team of skilled engineers to conduct cutting-edge research in utilizing machine learning to enhance lighting and rendering for games.
- Fixed long-running issues in Terrain rendering at Unity, unblocking several game studios.
- **Patent Pending** : System and Method for Interactive Asynchronous Tile-Based Terrain Generation

### Crystal Dynamics

Redwood City, CA, USA

ENGINE LEAD, FUTURE PROJECTS / SENIOR SOFTWARE ENGINEER

Nov 2014 - Aug 2019

- Led the R&D team developing engine and tool technologies for the future of games at Crystal Dynamics.
- Engineered a novel end-to-end graph-based artist-animated blendshape control from Maya to the game.
- Developed a solution to support collaborative editing of game worlds in real-time.
- **Patent #11189068** : Macro-based electronic map editing.

### Dreamworks Dedicated Unit

Bengaluru, Karnataka, India

SOFTWARE APPLICATIONS ENGINEER, ANIMATION & RIGGING TOOLS

Mar 2013 - Oct 2014

- With the R&D team, developed the award-winning animation and rigging tools for DreamWorks Animation.
- Improved design of cache handling and paging to improve editor performance.
- Prototyped high-performance hierarchical memory models for the next generation rigging tools.

### Microsoft Corporation

Redmond, WA, USA

SOFTWARE DEVELOPMENT ENGINEER IN TEST, XBOX GRAPHICS

July 2011 - Oct 2012

### Nokia Research Center

Santa Monica, CA, USA

RESEARCH INTERN, MOBILE EXPERIENCES

May 2012 - July 2012

### Yahoo! Software Development India

Bengaluru, Karnataka, India

SENIOR SYSTEMS ENGINEER / SYSTEMS ENGINEER

July 2006 - July 2009

## Education

### Nanodegree, AI For Trading

Online

UDACITY

Jun 2021 - May 2022

### Nanodegree, Deep Learning

Online

UDACITY

Jun 2020 - Oct 2020

### Masters of Science in Computer Science, Game Development

Los Angeles, CA, USA

UNIVERSITY OF SOUTHERN CALIFORNIA

Aug 2009 - May 2011

### Bachelor of Engineering, Computer Science

Bengaluru, Karnataka, India

BMS COLLEGE OF ENGINEERING

Aug 2002 - June 2006