

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 and inference overhead.
- Implemented high-performance, GPU accelerated tile-stitching for Unity's terrain system with zero latent allocations.
- 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.
- Improved editor performance by over 20x in 2 years, and rendering performance by 2x.
- 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 2010 - July 2010

Yahoo! Software Development India

Bengaluru, Karnataka, India

SENIOR SYSTEMS ENGINEER / SYSTEMS ENGINEER

July 2006 - July 2009

Education

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

Udacity

Online

NANODEGREE, AI FOR TRADING

Jun 2021 - May 2022

NANODEGREE, DEEP LEARNING

Jun 2020 - Oct 2020