

Rachit Shrivastava

Education

North Carolina State University

M.S., Computer Science
Expected May 2018 | Raleigh, NC
GPA: 3.83/4

VIT University

B.Tech, Computer Science & Engg.
May 2013 | Vellore, India
GPA: 8.96/10

Links

Github:// [rachit491](#)
LinkedIn:// [rachit-shrivastava](#)

Technical Skills

Languages

C++, Java, Python, C (Linux Kernel)

Web Technologies

HTML5/CSS3, jQuery, PHP, JavaScript, TypeScript, WebGL, p5, ReactJS, NodeJS, AngularJS, three.js, createJS, REST APIs

Databases

Oracle 11, MySQL, SimpleDB

OS

Linux, Unix, Windows, OSX

Project Tools

SVN, Git, JIRA, Rally, TestTrack

Coursework

Graduate

Design & Analysis of Algorithm
Operating Systems
Database Management & Systems
Game Engine Foundations
User Experience
Building Game AI

Undergraduate

Object Oriented Paradigm
Software Engineering + Practicum
Computer Networks + Practicum
Internet & Web Programming
Programming Language Translators

Interest Areas

Full-Stack Development, Software Engineering, Front-End Development

Work Experience

Nokia | Software Development Co-op (Summer'17 + Fall'17)

May 2016 – present | Raleigh, NC

1. Performed Integration & Unit Testing maintaining communication through the DB on Opencord vOLTHA's Passive Optical Network (PON) Adapter: *Python, C++*
2. Reconcile mechanism for SDAN Controller for PON Configuration devices: *C++*

Bally Technologies (now Scientific Games Inc.) | Software Engineer

October 2013 – May 2016 | Bangalore, India

1. Worked on the Bally Mobile Game Framework level to create sound modules, communications to server: *JavaScript, nodeJS, MVC, REST APIs*
2. Learned the functionality of new GDK, by developing Monopoly game, for both client, server framework & communication between them: *TypeScript, box2D, C++*
3. Trained developers from teams in Bangalore, Chennai & Pune about the new GDK, awarded 'Employee of the Month – Aug15'
4. Worked for the resource & animation optimizations for new GDK using JS libraries. Successfully integrated createJS to GDK: *createJS, three.js, Phaser, TypeScript, ReactJS*

Research

Masters' Thesis | August 2017 – present

Structuring Human-ML Interaction with an Immersive Interface based on Qualitative Coding (*with Johanne Christensen, Dr. Ben Watson, with IBM*)
Selected for Poster Presentation at IEEE VIS Oct'2017, Phoenix, Arizona

Visual Experience Lab, NCSU | January 2017 – present

Analyzing the experience of people with the NVIDIA graphics technologies G-SYNC, V-SYNC based on the factors like cost, performance, hardware, etc. and evaluating best suitable technology, G-SYNC or any other: *UX, IAT*

Institute for Emerging Issues, NCSU | April – August 2017

Prototyping the existing IEI Commons display software from static content to customizable one for better display: *JavaScript, p5, createJS, ReactJS, MV**

Aeronautical Development Establishment, Bangalore | January – April 2013

Validated and verified safety critical Ada code which was used to control flight characteristics for India's first indigenous fighter aircraft, Tejas. Performed analysis by graphical comparisons between flight simulation results and MATLAB Simulink model data to detect anomalies: *Ada, MATLAB*

Projects

Multiplayer Networked Game Engine. Designed & developed a multi-threaded networked multiplayer game engine server using Chandy-Misra-Bryant Algorithm for event synchronization. Developed Pong and Space Invaders on it: *Java, Processing*
AI Bot for Scotland Yard Board Game. Developed AI for Mr X and the detectives using Greedy Algorithm and Monte Carlo Tree Search: *Java, Processing*
NonPersistent-Heap. Implemented mmap support interface that user-space library uses to request the mapping of kernel space memory into the user-space memory in the form of a perishable heap memory, along with lock/unlock function so that one process can access object at same time: *C*

Course Assessment System. Designed a DB for course assessment system similar to Gradiance architecture: *Oracle11, Java, ER-Modelling*

3D Frogger. 3D version of Konami classic Arcade Game Frogger, with a first-person view: *JavaScript, three.js, WebGL*