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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#, C (Linux Kernel)

Web Technologies
HTML5/CSS3, jQuery, PHP, JavaScript, TypeScript (*edX certified*), WebGL, p5, ReactJS, NodeJS, AngularJS, three.js, createJS, Phaser, Unreal Engine 4, Unity

Databases
Oracle 11, MySQL, SimpleDB

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
Advance Computer Graphics

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

Interest Areas

Computer Graphics, UX/UI, Game Development, Full-Stack Development, Software Application 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. Designing the UI for SDAN Controller for PON Configuration devices: *C++, Qt*

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

Projects

3D Frogger. 3D version of Konami classic Arcade Game Frogger, with a first-person view: *JavaScript, three.js, WebGL*
Multiplayer Networked Game Engine. Designed & developed a multi-threaded networked multiplayer game engine using Chandy-Misra-Bryant Algorithm for event synchronization. Developed Pong and Space Invaders on it: *Java, Processing*
Demoreel. Created a demo-reel of landscape demonstrating graphics techniques - LoDs, Terrains, Reflections, Global Illumination, Particle Effects: *Unreal Engine 4*
Future of Presentation. Identified current limitations & outdated practices with existing form of ppts & analyzed as to why they are ineffective: *JavaScript, SlidesAPI*
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*
Course Assessment System. Designed a DB for course assessment system like Gradience architecture: *Oracle11, Java, ER-Modelling*