# Doug Rudolph

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## **EDUCATION**

#### **RUTGERS UNIVERSITY**

BA IN COMPUTER SCIENCE
CONC. IN COMPUTER GRAPHICS
COLLEGE OF ARTS AND SCIENCES

Expected Graduation: May 2017 Location: New Brunswick, NJ

## LINKS

LinkedIn: /in/DougJRudolph Github: github.com/11

## COURSEWORK

Computer Graphics
(Research Asst.)
Data Structures
Programming Principles
Software Engineering
Data Analystics
Linear Algebra
Databases
Algorithmic Design
Game Development
Unix Tools and Scripting

## **SKILLS**

## **LANGUAGES**

Over 5000 lines:
Java • C# • C++ • Python
C • JavaScript • ASP.net
Over 1000 lines:
CSS • LEX• Assembly
MySQL•PHP • Clojure

#### FRAMEWORKS & TOOLS

LINQ • Git • Terrminal Flask • Vue.js • JQuery OpenGL • GLSL • Monogame LibGDX • XNA • Bootstrap Linux Systems • MongoDB

## INVOLVEMENT

#### **CLUB & POSITION**

USACS• Web Master USACS• Community CS Mentor HackRU • Hacker Experience Director HackRU • Hackathon Judge RU Tech Meet UP• Event Organizer

## **EXPERIENCE & LEADERSHIP**

#### **RECCELERATOR** | Software Engineer & Co Founder

July 2014 - Now | Washington DC, MD & Sparta, NJ

- Wrote a web payment portal using C#, ASP.net, and the Stripe payment API to track and store credit card transactions in a Microsoft SQL Database
- Developed an in house data-analytics API with the C# LINQ framework to pull statistics from credit card transactions to seek out spending patterns

### **RUTGERS UNIVERSITY | GRAPHICS RESEARCHER**

May 2016 - Now | Piscataway, NJ

- Working underneath Ph.D Dr. Bahman Kalantari as lead software engineer for his polynomiography algorithmic art visualization research
- Responsible for maintaing the project code base and writing shaders in GLSL, OpenGL, and Java for Dr. Kalantari's algorithm to the Convex Hull problem

## **RUTGERS UNIVERSITY** | RECITATION LEADER & CODE RED TUTOR Sep 2016 – Now | Piscataway, NJ

- Organize and conduct weekly recitations for introductory computer science courses to solidify concepts that are taught during formal lectures
- University CS tutor for Introduction to CS & Data Structures

## RUTGERS COGS | PRESIDENT - CREATION OF GAME SOCIETY

Sep 2016 – Now | Piscataway, NJ

- Creating a strong Rutgers CS community and managing \$20,000 to create informative and educational events for Rutgers computer scientists
- Coordinating with the university and running a university-wide game jam
- Guided mentors for 1000 developers at the Rutgers biannual hackathon

## **PROJECTS**

### **GG-ENGINE** | 2D PLATFORMER GAME ENGINE

www.github.com/11/GGEngine

- Developed a scalable 2D game engine using LibGDX, Box2D, and Box2D-lights that allows developers to create, design, and publish platforming games
- Engineered custom tile-mapping library that utilizes Tiled's map editing software with Java to parse orthoganal and isometric tile-maps into a level

## **DYNAMO** | DYNAMIC AGENDA

www.github.com/11/Dynamo

- Chrome extension designed to be used as a dynamically updating agenda that suggests the order responsibilities should be completed
- Determines the order based on due date and previously finished, related tasks
- Designed the front-end using HTML, wrote a custom CSS library, and authored the data prioritization and local hosting components with pure JavaScript
- Won 'Most self-reliant hack' at HackNY Fall 2016

#### **EDUSCAPE** | Gamifying Education

www.github.com/11/Eduscape

- Educational web-app built to work with the Canvas API to allow students to anonymously wager credits and duel to compete for classroom high scores
- Wrote scalabale database model using MySQL and integrated it with Node.js
- EduScape won Microsft 'Honorable mention prize' at HackPSU Spring 2015