

Rupam Roy

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Education

Binghamton University, State University of New York

Expected May 2019

Bachelor of Science, Computer Science

Relevant Courses: Design & Analysis of Algorithm, Automata Theory & Formal Lg, Operating Systems, Probability with Stat Methods, Computer Systems I, II, III, Discrete Mathematics, Data Struct & Algorithms, Linear Algebra, Programming with Objects, Eth Soc & Global Issues Computing

Technical Skills

Languages: C, C++, Java, Python, Visual Basic .NET, X-86 Assembly, SQL, LaTeX, HTML, XML, CSS, JavaScript

Software and OS: Microsoft Test Manager (MTM), Arduino, Eclipse, Android Studio, Visual Studio, Windows, Linux

Additional: GDB, Valgrind, Bash, NPM, Node.js, JSON, AWS, Git, Microsoft TFS, Microsoft Office

Professional Experience

SUNY Binghamton University, Course Assistant

Binghamton, NY **Fall 2017**

- Aided students in fortifying the fundamental concepts of the design and implementation of operating systems
- Improved students' grasp on computer architecture concepts such as pipelining, cache management, and ISA
- Graded and provided supportive suggestions for homework assignments, labs, and projects
- Comprehensively evaluated students' C/C++ program with multiple test cases on Windows and Linux on TJW mainframe including compiling and installing custom kernel on CentOS

NYC Department of Youth & Community Development (DYCD), QA Analyst

New York, NY **Summer 2016**

- Analyzed and improved the user interface of web applications operated by millions of New Yorkers
- Created, deployed, and reported test cases using Microsoft Test Manager
- Applied a needs assessment using Salesforce CRM to improve DYCD's partner and customer relationship
- Collaborated with the software team to oversee projects' codebase with Microsoft Team Foundation Server
- Prepared documents for data entry: entered data into designated database and forms
- Participated in company meetings to review and suggest inputs about various company projects

Project Experience

Software Developer

Bronx, NY **May 2016 - June 2018**

- Published an app on Google Play Store to present Binghamton campus dining menu in an attractive UI design
- Applied open source libraries like jsoup, volley, and picasso to manipulate HTML and JSON web data
- Utilized SQLite database to maintain and sort/filter large set of data while improving data retrieval performance
- Published two Alexa skills on the Amazon App Store that retrieve a term from the Fibonacci sequence and report accurate time down to seconds by considering the time lost from invoking skill to responding to user
- Utilized Alexa Skills Kit, JavaScript, Node.js, open source APIs, and Amazon Web Service Lambda

C/C++ Programmer

Binghamton, NY **June 2014 - September 2017**

- Co-programmed a flat super simple file system (SSFS) multi-threaded C program to emulate a disk storage
- Coded a C program to measure the effectiveness of cache subsystem organizations using traces of memory instructions obtained in realistic programs
- Utilized GDB and valgrind to effectively locate and fix errors in C/C++ programs, analyze, and efficiently handle memory resources
- Programmed Arduino Uno, a popular microcontroller board, in C to control LEDs, DC motor, and a LCD display

Java Co-Programmer

Binghamton, NY **January - May 2016**

- Implemented a Pippin assembler in Java to take in and assemble an assembly file, and display memory content in GUI
- Created and employed JUnit tests to meet specifications set by professor

Leadership Experience

New York Cares, Volunteer

New York, NY **February 2013 - May 2014**

- Traveled to disadvantaged communities to gain new perspective while contributing 250+ volunteering hours
- Acted as team leader to gather and organize student volunteers for Teen Service Team's final project
- Received 2014 Presidential Service and Mets Volunteer Challenge Awards