BOBBY RANJAN

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Education

Nanyang Technological University
B.Eng. in Computer Engineering
Minor in Entrepreneurship & Life Sciences
CGPA - 4.59/5.00 | Ex. Graduation - June 2018

Vikhe Patil Memorial School
Grade 12 | CBSE Board Examinations (A-level equivalent) | Science Stream
School Topper with 96.8% | May 2014

Skills

Programming Languages:
Java • Python • C# • C
Web Development:
HTML5 + CSS3 • JavaScript • jQuery • Bootstrap • PHP • JSP • Django • AngularJS • Node.js • MongoDB • ActiveMQ
Other Software Skills:
Git • Heroku • SQL • Android • Firebase • Spring • Gradle • JUnit • Roslyn
Hardware Skills:
Circuit Design • XPPAUT • MATLAB • Arduino • ARM Cortex M4 • Raspberry Pi

Co-Curricular Activities

IEEE NTU Student Branch | Vice President
NTU Sikh Society | Publicity Director
NTU Model United Nations | Media
NTU Students' Union | Events Director

Selected Courses

Discrete Mathematics
Algorithms
Data Structures
Operating Systems
Introduction to Databases
Digital Systems Design
Software Engineering
Sensors, Interfacing & Control Systems
Microcontroller Programming
Computer Networks
Principles of Genetics
Entrepreneurship for New Ventures
Introduction to Forensic Science (Coursera)
Computational Neuroscience (Coursera)
Chinese Language Level 1

Interests

Life Sciences • Hackathons • FIFA • Football (Soccer) • Table Tennis • Singing

Fun Facts

✓ Invited to UC Berkeley in June 2013 for National Student Leadership Conference (NSLC)
✓ Possesses DELF A2 diploma in French from Ministry of Education, France
✓ Performed in a university-wide dance concert in front of over 300 people

Experience

Software Design Engineer Intern | BitTitan
May 2017 – August 2017 | Singapore
• Built customer-facing license consumption report for all BitTitan products
• Conducted tech feasibility analysis to improve BitTitan's reporting capacity
• Built code analysis tool to clean up database references across codebase
• Tech stack includes C#, SQL and Microsoft Roslyn

Technology Analyst Intern | Bank of America, Merrill Lynch
August 2016 – December 2016 | Singapore
• Used message queues to improve efficiency of payment processing system
• Built a proof-of-concept (POC) to help onboard new testers onto platform
• Tech stack includes AngularJS, Java Spring, ActiveMQ, MyBatis & SQL

Summer Intern | Asia Risk Transfer Solutions (ARTS)
May 2016 – July 2016 | Singapore
ARTS is a software and technology solutions startup that aims to help create and manage risk transfer products for developing communities in Asia
• Developed 2 MVP Android applications for different user groups
• Enhanced server-side API of the enterprise web application
• Tech stack includes Java, Android and Django

President's Research Scholar | Nanyang Technological University
August 2015 – June 2016 | Singapore
Project Title: Composite mathematical modelling of calcium signalling behind neuronal cell death in Alzheimer's disease
• Used XPPAUT and MATLAB for modelling purposes
• Paper accepted for publication in BMC Systems Biology
• Presenting paper at APBC 2018 (Yokohama, Japan)

Selected Projects

Protein Interaction Networks | Final Year Project, NTU | April 2017 - Present
• Applied machine learning algorithm to predict missing and spurious links in protein interaction networks (PIN)
• Developed Cytoscape plugin using Java; used Python for network analysis

CommandPlus | NUS Hack & Roll 2017 | January 2017
• CommandPlus is a Chrome extension that provides hand gesture-based control of one's browser.
• Won **People's Choice Award** at NUS Hack & Roll 2017
• Built using OpenCV, WebSockets and JavaScript

CodeBot| Facebook Singapore Hackathon 2016 | September 2016
• CodeBot is interactive chatbot that helps beginners learn how to code with witty replies, GIFs and human-readable errors
• Tech stack includes MongoDB, api.ai, Node.js, HTML, CSS & JavaScript

WhyBills | Facebook Singapore Hackathon 2015 | February 2015
• A system designed to eliminate printed bills at any point of sale (POS)
• Retailers can encode their bill, generate a QR Code on the POS System and display this QR Code to the customer as a receipt
• Tech stack includes XML, Java (Android) & SQLite

When We Meet Again| NUS Hack & Roll 2015 | January 2015
• An Android app that uses the relative distance between users, determined using the phone's Bluetooth, to trigger a reminder/push notification
• Won **Best Freshmen/Non-Tertiary Award** at NUS Hack & Roll 2015.
• Tech stack includes XML, Java (Android) & SQLite

Achievements & Awards

People's Choice Award | NUS Hack & Roll 2017 | January 2017

Best Freshmen Award | NUS Hack & Roll 2015 | January 2015

All India Rank 1820 | IIT JEE Advanced (India) | May 2014

All India Rank 3 scoring 98.2%| ICSE Board (O-level equivalent) | May 2012