

BOBBY RANJAN

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Education	Experience
Nanyang Technological University <i>MOE Tuition Grant Recipient</i> B.Eng. in Computer Engineering Minor in Entrepreneurship & Life Sciences CGPA - 4.60/5.00 Ex. Graduation - June 2018	Bioinformatics Specialist Genome Institute of Singapore August 2018 – Present Singapore <ul style="list-style-type: none">Developing algorithms for cell type identification in single-cell data
Vikhe Patil Memorial School Grade 12 CBSE Board Examinations (A-level equivalent) Science Stream School Topper with 96.8% May 2014	Software Design Engineer Intern BitTitan May 2017 – August 2017 Singapore <ul style="list-style-type: none">Built customer-facing license consumption report for all BitTitan productsConducted tech feasibility analysis to improve BitTitan's reporting capacityBuilt code analysis tool to clean up database references across codebaseTech stack includes C#, SQL and Microsoft Roslyn
Skills	Technology Analyst Intern Bank of America, Merrill Lynch August 2016 – December 2016 Singapore <ul style="list-style-type: none">Used message queues to improve efficiency of payment processing systemBuilt a proof-of-concept (POC) to help onboard new testers onto platformTech stack includes AngularJS, Java Spring, ActiveMQ, MyBatis & SQL
Programming Languages: R • Java • Python • C# • C	Summer Intern Asia Risk Transfer Solutions (ARTS) May 2016 – July 2016 Singapore ARTS aims to help create risk transfer products for developing communities in Asia <ul style="list-style-type: none">Developed 2 MVP Android applications for different user groupsTech stack includes Java, Android and Django
Web Development: HTML5 + CSS3 • JavaScript • jQuery • Bootstrap • PHP • JSP • Django • AngularJS • Node.js • MongoDB • ActiveMQ	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 <ul style="list-style-type: none">Paper published in BMC Systems Biology in April 2018Presented paper at APBC 2018 (Yokohama, Japan)
Other Software Skills: Git • Heroku • SQL • Android • Firebase • Spring • Gradle • JUnit • Roslyn	Selected Projects
Hardware Skills: Circuit Design • XPPAUT • MATLAB • Arduino • ARM Cortex M4 • Raspberry Pi	scConsensus CSHL Single Cell Analyses November 2019 <ul style="list-style-type: none">Hybrid approach to obtain cell type labels in scRNA-seq data using a consensus of semi-supervised and unsupervised clusteringSelected for flash talk at Single Cell Analyses Meeting, CSHL in Nov. 2019https://github.com/bbbranjan/scConsensus
Co-Curricular Activities	ContextNewsBot NUS Hack & Roll 2018 January 2018 <ul style="list-style-type: none">A Chrome extension that provides a diverse set of news articles and objective Wikipedia links for any tweet on your Twitter timeline.Won Top 8 prize & Most Socially Useful Hack award at NUS Hack & Roll 2018.Uses a Flask server with Twitter and news APIs, and a custom NLP pipeline
IEEE NTU Student Branch Vice President NTU Sikh Society Publicity Director NTU Model United Nations Media NTU Students' Union Events Director	Protein Interaction Networks Final Year Project, NTU August 2017 - Present <ul style="list-style-type: none">Applied module detection and clustering algorithms to help researchers identify significant modules in Protein Interaction Networks (PIN).Developed Cytoscape plugin using Java; used Python for network analysis.
Selected Courses	CommandPlus NUS Hack & Roll 2017 January 2017 <ul style="list-style-type: none">A Chrome extension providing hand gesture-based control of one's browser.Won People's Choice Award at NUS Hack & Roll 2017.Built using OpenCV, WebSockets and JavaScript.
Machine Learning Computer Vision Advanced Algorithms Distributed Systems Information Retrieval Operating Systems Introduction to Databases Digital Systems Design Software Engineering Sensors, Interfacing & Control Systems Computer Networks Biostatistics Biochemistry Principles of Genetics Entrepreneurship for New Ventures	When We Meet Again NUS Hack & Roll 2015 January 2015 <ul style="list-style-type: none">An Android app that uses Bluetooth proximity to trigger reminders.Won Best Freshmen/Non-Tertiary Award at NUS Hack & Roll 2015.Tech stack includes XML, Java (Android) & SQLite.
Interests	Achievements & Awards
Life Sciences • Hackathons • FIFA • Football (Soccer) • Table Tennis • Singing	Top 8 & Most Socially Useful Award NUS Hack & Roll 2018 January 2018 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
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	