

ABHISHEK VIJAYAN

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EDUCATION

- **Master of Information Technology** 2019 - 2021
Streams : Artificial Intelligence and Bioinformatics
UNSW Sydney
 - WAM : 79.545 after 5 trimesters
- **BTech in Computer Science and Engineering** 2011 - 2015
National Institute of Technology Calicut, India
 - 8.56 CGPA on a scale of 10

WORK EXPERIENCE

- **Research Officer (part-time) : Vafae Lab** Mar 2021 - Current
(School of Biotechnology and Biomolecular Sciences, UNSW Sydney)
 - Developing an R package for a novel scRNA-seq preprocessing method
- **Research Assistant (part-time) : Vafae Lab** Mar 2020 - Feb 2021
(School of Biotechnology and Biomolecular Sciences, UNSW Sydney)
 - Project : Benchmarking study of feature extraction methods for cancer diagnosis using blood-based biomarkers
 - Implemented a prediction pipeline in R language
- **Summer Intern : Vafae Lab** 13 Jan - 14 Feb 2020
 - Project : Prediction of Glioblastoma from mRNA profiles of TEPs using transfer learning approach
 - Used Pytorch to implement feed-forward neural network for GBM prediction, while pre training the network on Lung Cancer data
- **Instructor (part-time) : Junior Engineers (In Sydney)** Jun 2019 - Dec 2019
 - Assisted the lead instructor in teaching MicroBits to students aged 6 - 14 during holiday program
- **Software Developer : Niki.ai (In Bangalore, India)** Apr 2018 - Jan 2019
(Chatbot mobile app company to enable text and voice based online transactions)
 - Migration of Hotels Domain from Java based component to a Python based component - with a view of better multi-language support

- Involved designing nodes for determining conversation flow and defining NLP grammar for various user utterances
- **Software Engineer I : Vizury** (In Bangalore, India) July 2015 - Mar 2018
(growth marketing technology company)
 - Developed Core-API endpoints for Engage Backend. Core-API is a NodeJS based REST-like backend layer for the Engage UI.
 - Set up metrics and alerts for different components in the team using OpenTSDB, Ganglia, Nagios, OpsGenie
 - Implemented a Java module to securely store and access Personally Identifiable Information for Email and SMS use cases
 - Was in-charge of a feature to show near real-time prices on flight banner
 - Using : Java, Kafka, Aerospike, MySQL

TECHNICAL SKILLS

- R, Python
- Java, C++
- MySQL, Aerospike, Kafka
- AWS

ACADEMIC PROJECTS

- **Precision Medicine Quality Control Dashboard**
 - ReactJS based dashboard for quality control metrics of sequencing data
 - 3 member team project under the guidance of Dr Mark Cowley, Dr Marie Wong, Sabrina Rispin from Children's Cancer Institute
- **Supply chain transparency**
 - Built a prototype for real-time monitoring of temperature and humidity within food containers
 - 6 member group project as part of the IoT course at UNSW
 - Won the 1st place in the pitch event sponsored by Bosch
- **Prediction of Click Through Rates(CTRs)**
 - BTech major project
 - Algorithms namely Linear regression, Logistic Regression, Neural Network were used as individual models and an ensemble by Neural Network was done.
 - Tools/Languages Used : R, Vowpal Wabbit, C++, Python, Octave