

VISHAL JAGANNATHAN

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Education:

Georgia Institute of Technology, Atlanta, GA

Jan 2020 – Dec 2022

Master of Science in Computer Science, Machine Learning Focus. [Click to see Coursework.](#)

University of Pittsburgh, Pittsburgh, PA

Aug 2014 – Apr 2018

Bachelor of Science in Bioengineering; Computer Science Minor

Work Experience:

Boston Scientific Senior Software Engineer Jun 2018 - Present

- Developed libraries, frameworks, applications and internal tools for the programming and testing of medical devices for Deep Brain and Spinal Cord Stimulation
- Development of Google Cloud based AI to detect sentiment in patients in a live video stream
- Ideation, organization, and implementation of an Azure Cloud based Virtual Machine cluster to reduce reliance on hardware, speed up development, and save costs
- Mentored 3 summer interns (2019, 2020, 2022) in the creation of data aggregation, resource allocation, client/server, and visualization projects utilizing MongoDB, Express, React, Vue, Node and C# (see right)
- Created and was granted a patent on a smart voice command assistant for the existing Deep Brain Stimulation programming application
- Utilized and developed knowledge in both FDA and European Union regulatory affairs in product design

Android Developer Jan 2012 - Present

- Published 7 applications resulting in over 10,000 downloads in the Google Play Store

ANSYS Inc. May 2017 - Jul 2017

- Leveraged GIT, TFS, and REST API
- Wrote custom automated scripts utilizing Python, Perl, and Shell Scripting
- Implemented a continuous integration and branch integration workflow
- Improved build monitoring and notification systems

Mentorship and Clubs:

Summer Mentor 2022 Jun – September 2022

- Mentored one intern with little background in coding to write an application in C# utilizing SignalR, a bidirectional communication protocol
- Completed wrapper integrated into new ecosystem and was leveraged to form a more complete framework
- Deliverable leveraged client/server protocol and maintained reliable and robust communication

Summer Mentor 2020 Jun – September 2020

- Taught MongoDB, Express, Vue, and Node (MEVN) stack to one intern
- Deliverable was a tool that connected to internal and external services to monitor statuses of projects with varying granularity and displayed multiple front ends for different end users

Summer Mentor 2019 Jun – August 2019

- Taught MongoDB, Express, React, and Node (MERN) stack to one intern
- Mentored in the creation of Data Aggregation and Visualization tool to manage test resource allocation

Toastmasters Officer May 2019 - Present

- Recruited members to the Toastmasters organization and spread awareness of ongoing events
- Maintained and kept up to date the organization's website, including meeting details and events

Relevant Skills:

- **Regulation:** Knowledgeable in ISO 13485, ISO 14971 and 21 CFR 820 Advanced
 - **Mobile Development:** Swift, Native Java (Android) Intermediate
 - **Programming Languages:** Python, C++, Java, R, PHP, C#, Golang (Go) Advanced
 - **Front End Development:** Flask, D3.js, React, Vue Advanced
 - **Back End Development:** MySQL, SQLite, MongoDB, Node, Django Advanced
 - **Software Packages:** MATLAB, LabVIEW, LaTeX, Solidworks, OpenRefine Advanced
 - **Frameworks:** Tensorflow, Keras, OpenCV, NumPy, SciPy, Scikit Learn Advanced
 - **Cloud:** Databricks, AWS (EMR, S3, EC2, EKS), GCP (Dataproc, VM/TPUs), Docker, Hadoop, Spark Intermediate
 - **English and Tamil Language** Native
 - **Mandarin Chinese** Intermediate
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Patents:

- VOICE COMMAND HANDLER FOR PROGRAMMING STIMULATION SYSTEMS AND METHODS OF USING 2021