

# ABHISHEK BABU

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Inquisitive and enthusiastic computer science student with strong foundation in math and programming logic. Highly interested in leveraging my skills in data science and machine learning applications.

## EXPERIENCE

### Software Engineering Intern

#### Pārv.ai

June 2020 – September 2020    Redmond, WA

- Pārv.ai is an AI-based educational platform interacting with various MOOC providers including Udemy and edX (on Azure Marketplace)
- Developed web content using Node.js, React.js, Bootstrap, HTML, CSS, and Azure Web Sites for **integration with Azure Active Directory**

### CodeLabs Intern

#### CodeDay

July 2020 – August 2020    Remote

- Built a **resume classification platform** using Node.js, Express.js, Keras and TensorFlow for Python based on potential matching job categories
- Implemented **data processing pipeline** in TensorFlow using Natural Language Toolkit (NLTK) and regular expression filtration techniques
- Used tokenization and padded sequencing to encode resume data
- Developed a **convolutional neural network** architecture to generate probability distributions for resume category classifications
- Deployed the data processing pipeline and neural network on the web server to allow users to classify their resumes

### Software Engineering Intern

#### Tata Consultancy Services

August 2019 – September 2019    Bellevue, WA

- Developed a .NET Core cross platform application with C# for a Raspberry Pi 4 to snapshot a conference room at regular intervals
- Leveraged Azure Cognitive Services for **human detection** and **facial recognition** analysis on conference room snapshots
- Used Azure Table Storage and Blob Storage for time-stamped storage of snapshots and analysis results
- Implemented **offline human detection** with OpenCV HaarCascade classifiers to optimize API calls, **reducing application cost by 90%**

## PROJECTS

### SpotiViz

July 2020 – Present

- A web application for users to visualize and analyze their Spotify listening data across variable timeline ranges
- Leveraging Python + Flask + the Spotify Web API for user authentication and data retrieval, and Bootstrap + D3.js for data visualization
- Project in development can be viewed at [spotivizual.herokuapp.com](https://spotivizual.herokuapp.com)

### ReadAct (for DubHacks 2020)

October 2020

- A Chrome extension that analyzes political bias and provides information about candidates and measures referenced in articles read by the user
- Leveraged the Bipartisan Press and WeVote APIs for conducting bias analysis and political information retrieval
- Leveraged the Azure Text Analytics API for entity/key phrase extraction and Bootstrap + D3.js for the frontend design

## EDUCATION

### B.S. in Computer Science

#### University of Washington, Seattle

September 2018 – June 2021

- Combined B.S./M.S. program in Computer Science (**M.S. graduation in June 2022**)
- **GPA: 3.98/4.00**
- **Data Science option** in B.S.
- **Minor in Mathematics** for B.S.
- Su Family Endowed Scholarship (2020-21)
- Microsoft Endowed Scholarship (2019-20)
- **Selected Coursework:**
  - Machine Learning (Graduate)
  - Algorithms | Data Structures & Parallelism
  - Database Systems Internals
  - Data Management | Data Visualization
  - Security | Systems Programming
  - The Hardware-Software Interface
  - Software Design & Implementation
  - Discrete Math | Probability & Statistics
  - Advanced Linear Algebra | Linear Analysis
- **Current Relevant Coursework:**
  - Machine Learning for Big Data (Graduate)
  - Computer Communication Networks
  - Research Seminar in Networks

## SKILLS

### Languages

Python    Java    C++    C#    C    Julia  
JavaScript    MATLAB    x86 Assembly

### Database Technologies

MySQL    Azure SQL    Firebase  
SQLite    Cypher    neo4j    SQL++

### Data Science

PyTorch    TensorFlow    Keras  
NumPy    Azure Cognitive Services  
Google Cloud Platform    D3.js    NLTK  
scikit-learn    OpenCV    Tableau

### Web Development

HTML    CSS    React.js    Express.js  
Node.js    Flask    Bootstrap    jQuery  
Heroku    Jinja    Axios    Pug    Jade