ABHISHEK BABU

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EXPERIENCE

Software Engineering Intern
Tata Consultancy Services

📅 Aug 2019 – Sep 2019 📍 Bellevue, WA

- **Project:** Meetings Monitor
- Create functionality to analyze conference room images from a remote IoT device for people detection and facial recognition of conference room users
- Add features for storing time-stamped data points into table storage (parsed detection results) and blob storage (images and unparsed results)
- Used data to produce comparative metrics of room booking vs. room usage
- Created cross-platform functionality with .NET Core
- Created and updated documentation for project dependencies and libraries
- **Technologies:** C# (.NET Core), Raspberry Pi 4, Raspbian (Linux), Microsoft Cognitive Services (Face API, Computer Vision API), OpenCV, OpenCvSharp, Microsoft Azure (Table Storage, Blob Storage, DevOps), JSON, Bash

Technical Project Lead
Autonomous Flight Systems Laboratory
University of Washington: College of Engineering

📅 Apr 2019 – Present 📍 Seattle, WA

- **Project:** Laboratory Reconciliation and Information System (LARI)
- Oversee project's technical development and ensure other developers' timely progress on user stories
- Developing a database management solution to streamline hardware components tracking and flight data
- Developing automatic checklist generating functionality for flight tests contingent on component tracking for UAVs and other aircraft to significantly reduce transition period between aircraft readiness and testing
- **Technologies:** C# (.NET Framework), Java, SQL, XAML, Git, Perforce, Trello

Assistant Taekwondo Instructor
True Martial Arts

📅 Sep 2018 – Present 📍 Sammamish, WA

- Leading warm-ups and training in sparring and Taekwondo forms
- Facilitating engaging and challenging Taekwondo lessons for groups ranging from 15 to 40 students
- Incorporating student and instructor feedback to ameliorate training

AWARDS

Microsoft Endowed Scholarship 📅 Sep 2019
- Merit scholarship awarded by the Paul G. Allen School of Computer Science and Engineering

Annual Dean's List 📅 Aug 2019
- Earned quarterly GPA >3.5 to appear on every quarterly Dean's List throughout the 2018-19 academic year at the University of Washington

Departmental Medallion for Mathematics 📅 Jun 2018
- Staff-selected award for excellent academic performance and extracurricular pursuits in mathematics at Skyline High School

EDUCATION

B.S. in Computer Science
University of Washington

📅 Sep 2018 – Jun 2021 📍 Seattle, WA

- GPA: 3.99/4.00
- Current Coursework:
  - Systems Programming
  - Data Management and Databases
  - Linear Analysis
- Prior Coursework:
  - Data Structures and Parallelism
  - Software Design and Implementation
  - The Hardware/Software Interface
  - Discrete Mathematics
  - Probability and Statistics
  - Scientific Computing (MATLAB)
  - Linear Algebra and Differential Equations
  - Engineering Statics and Dynamics
- Hackathons: DubHacks 2019

PROJECTS

Musique - DubHacks 2019
- Uses pixel data to produce music matching color-grading and tone of an image
- Wrote Python backend to leverage OpenCV for pixel-by-pixel image analysis and mapping data to musical chords, keys and notes
- Leveraged Flask to deploy HTML/CSS frontend on Google App Engine

Tweet Sentiment Prediction Model
- Harvested tweet data using the Twitter API
- Trained a logistic regression model using Scikit-Learn and NLTK to determine sentiment conveyed by tweets

Smart Mirror
- Built project using MagicMirror framework to display time, weather, calendar, etc. on mirror
- Implemented Google Assistant API to enable voice assistant

SKILLS

Java C# MATLAB C Python
JSON Flask Git SQL
HTML CSS Bash OpenCV
Microsoft Azure Google App Engine
CAD 3D Printing Photogrammetry