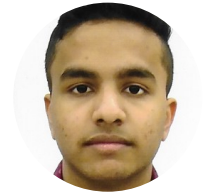# ABHISHEK BABU

@ babua@cs.washington.edu   📞 +1 (425) 677-5305   🔗 abhishekbabu.github.io
github.com/abhishekbabu   in linkedin.com/in/abhishek-babu

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 fields.

EXPERIENCE

Software Engineering Intern
Tata Consultancy Services

🗓 Aug 2019 – Sep 2019   📍 Bellevue, WA

- **Project:** Meetings Monitor
- Used IoT device to survey a conference room at regular intervals
- Created cross-platform functionality to analyze conference room images for human detection and facial recognition of conference room users
- Added features for storing time-stamped data points into table storage (parsed detection results) and blob storage (images and unparsed results)
- Integrated application with conference room booking bot to gather metrics about conference room bookings vs. uasge quality
- Created and updated documentation for project dependencies and libraries
- **Technologies:** C# (.NET Core), Raspberry Pi 4, Raspbian (Linux CLI), Microsoft Cognitive Services (Face API, Computer Vision API), OpenCV, HaarCascade Classfiers, OpenCvSharp, Microsoft Azure (Table Storage, Blob Storage, DevOps), JSON

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

🗓 Apr 2019 – Present   📍 Seattle, WA

- **Project:** Laboratory Reconciliation and Information System (LARI)
- 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
- Oversee project's technical development and ensure other developers' timely progress on user stories
- **Technologies:** Java, SQL, Git, C# (.NET Framework), XAML, Perforce, Trello

Assistant Taekwondo Instructor
True Martial Arts

🗓 Sep 2018 – Present   📍 Sammamish, WA

- Lead warm-ups and training in sparring and Taekwondo forms
- Instruct Taekwondo lessons for groups ranging from 10 to 50 students

AWARDS

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

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
  - Computational Probability and Statistics
  - Scientific Computing (MATLAB)
  - Linear Algebra and Differential Equations
  - Engineering Statics and Dynamics

PROJECTS

Musique for 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 and IoT capabilities

SKILLS

Java   C#   MATLAB   C   Git
C++   SQL   Python   JSON
ReactJS   HTML   CSS   OpenCV
Chrome API   Microsoft Azure
3D Modelling   Photogrammetry