# KUSHAGRA SRIVASTAVA

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#### **EDUCATION**

### UNIVERSITY OF MASSACHUSETTS AMHERST

Amherst, MA

Bachelor of Science w/ Honors | Major in Computer Science

Expected May 2024

Cumulative GPA: 3.52/4.0; Dean's List; Received Chancellor's Scholarship for Merit Based Achievements during High School. Relevant Coursework: Data Structures; Computer Systems; Reasoning Under Uncertainty (Statistics, Probability, Game Theory);

Programming Methodology; Algorithm Design (+ Hons. Colloq.); Artificial Intelligence; Operating Systems (+ Hons. Colloq.) Clubs: Google Developer Student Clubs, UMass Student Alumni Association, UMass PITCH (Performing Live Music)

#### COLLEGE OF NATURAL SCIENCES AT UMASS AMHERST

Nov 2020 - Present

- Integrated Concentration in Sciences; a 20-Credit Research Based Undertaking backed by NSF.
- Published 4 research projects on the UMass Amherst website, compiled here; suobset.github.io/iCons

#### WORK EXPERIENCE

SMITH COLLEGE Northampton, MA

Research Assistant Oct 2022 - Present

- Assisting in the Software Development part of the current research under the guidance of Dr. Ileana Streinu at Smith College.
- Optimizing systems and servers to ensure the lab's software programs work efficiently, as well as ensuring upkeep, and security.
- Technologies in use: C, C++, Java, and Python, along with a heavy utilization of UNIX CLI programs and server systems.

#### FN MATHLOGIC CONSULTING SERVICES

Gurugaon, India

Machine Learning Intern

Jun 2022 - Aug 2022

- Constructed, trained, analyzed, and optimized Neural Networks on tabular, and image based datasets via TensorFlow and Keras.
- Achieved high accuracy levels on the MNIST Database (96.21%), VisualQA (94.56%), and datasets reflecting market conditions.
- Performed data rollups at customer level using Pandas, resource allocation, neural network construction and optimization, and
  ensemble machine learning for predicting credit card defaults in a Kaggle Competition with American Express with a 92% accuracy.

#### THE INDIAN HIGH SCHOOL

Dubai, U.A.E.

IT Specialist & Trainer | alumni.ihsdubai.org

Apr 2020 - Aug 2020

- Led a team of 14 graduates to develop an app (Android & iOS) using Kotlin, Swift, Firebase, and Flutter in 3 weeks.
- Integrated it with Microsoft 365 to move coursework for 4500+ students. Trained 150 Faculty Members on using the app.
- Implemented and tested the authentication system of the school's Alumni Portal using Django, Python, and SQL.

# TATA CONSULTANCY SERVICES

Dubai, U.A.E.

Software Developer Intern

May 2019 - Aug 2019

- Designed a platform in 6 weeks for a Food Company (Kout Food Group) to digitize the infrastructure across 19 branches.
- Used AWS, SQL, and Hadoop to develop a platform to manage the inventory and daily activities, with real time tracking.
- Deployed the product's initial phase in under 2 weeks, as well as devised a 6-month migration plan to turn 100% digital.

### **PROJECTS**

### Mapping Transit Accessibility in Boston | suobset.github.io/iCons/iCons/iCons2-MoS/redirect

- Collaborated with a team of 5 people to map the Boston Public Metro System, and analyze its accessibility.
- Programmed Interactive Map using GIS and R to showcase accessibility of 162 metro stations, along with real-time on-field data taken in Boston over the span of 2 weeks, backed by MBTA, The Museum of Science at Boston, and UMass CNS.

### Assessing the Development of Renewable Energy | suobset.github.io/iCons/iCons/iCons2-CS1/redirect

- Launched an interactive website to showcase the development and adoption of Flow Batteries between 2015, predicted until 2027.
- Built interactive graphics using JavaScript, and gave a 10-minute keynote to help the audience interact and experiment with the data.

### MoodMusic (HackUMass IX: 48 hr Hackathon) | github.com/suobset/MoodMusic

- React App which integrates with a user's Spotify Account to determine moods of songs being played using a mathematical model.
- Coded mathematical model using NumPy, created API using Flask to bridge between React is and Python.

#### On The Move | with Spider Business Consultancy, Dubai | May - Aug 2021

- Developed a web and mobile app to help the company expand their business consultancy services to clients in over 30 countries.
- App leveraged automated recommendations for clients, as well as achieved more interactive and efficient delivery of services.

#### **DermSafe (HackUMass VIII: 48 hr Hackathon)** | github.com/suobset/hackUmass-VIII-proj-DermSafe

- Android app which determines if an individual has Skin Cancer based on uploaded pictures with an accuracy of 87%.
- Machine Learning Model trained on Tensorflow with 4000 images from ISIC, PH2, and Complete MedNode online databases.

## **SKILLS**

**Programming Languages**: Java, Python, SQL, C, C++, JavaScript, R, RUST, Kotlin, Swift, Objective-C, HTML/CSS, x86 Assembly **Frameworks + Tools**: TensorFlow, Keras, Django, Node.js, React, Angular, Numpy, Pandas, Flask, Firebase, Flutter, Git, Bash, AWS