Uma Subbiah

Chicago, Illinois **(Authorized to work in the US with a H-1B visa)**
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Education

- **University of Oxford** — Oxford, UK
  Master of Science in Computer Science, **Distinction (in both coursework and thesis)** — *Oct 2020 – Sep 2021*
  Select Coursework: Machine Learning, Adv. Machine Learning, Computational Biology, Computers in Society
- **Amrita Vishwa Vidyapeetham** — Coimbatore, India
  Bachelor of Technology in Computer Science & Engineering — *Jul 2016 – Jun 2020*
  GPA: 9.91/10, 1st Class, Distinction, Gold medal for highest graduating GPA
  Select Coursework: Neural Networks & Deep Learning, Machine Learning & Data Mining, Computational Intelligence

Experience

- ***Software Engineer 1,* McDonald's Corporation** — **Chicago, Illinois | *Sept 2022 – Present***
  - Global Digital Engineering team member, responsible for the backend RESTful API implementation of the McDonald's app for all global markets – currently on the team that handles validation, totalization, and fulfillment of orders
  - Investigation and fixes to accommodate > 10 different promotions, across various markets and countries
  - Written > 20 Postman collections that (along with GitHub actions) automate the verification of orders-related services; performed a multitude of user acceptance tests; increase code coverage with unit tests for 5 services
  - Responded to requirement changes – adding API endpoints, wrapping response types, investigating tax calculation implementation according to changes in local regulations (e.g., Italy), etc.
- ***Software Engineer,* Matician, Inc.** — **San Francisco Bay Area, California | *Nov 2021 – Sept 2022***
  - Worked on computer vision & deep learning algorithms, as an integral member of the Perception Software Team.
  - Designed, implemented a computer vision SLAM benchmarking pipeline, using data version control & visualization tools.
  - Automated the calibration of robots, reducing the necessary human-involvement from >1.5 hours to 5 minutes per robot.
  - Achieved autonomous docking algo design with < 4cm translational & negligible rotational error (range: < 25cm of dock).
- ***Lead*, Developer Student Club by Google Developers** — **Coimbatore, India | *Jan 2019 – Jul 2020***
  - Conducted over 7 workshops & hackathons; trained over 300 students on campus; increased student participation to 3-digit registrations. Invited (and sponsored) to the India DSC Summit by Google Developers at Goa, India
- ***Intern,* IIT Madras Research Park** — **Chennai, India | *May 2019 – Jul 2019***
  - Artificial Intelligence: Developed a prototype for predicting the presence of chronic kidney disease inpatients, using case-based reasoning in A.I.; my work was accepted for testing and verification, after the completion of my internship.
- ***Research Intern*, Leeds Beckett University** — **Leeds, UK | *Feb 2018 – Jul 2018***
  - Conducted research on the use of Machine Learning to predict software bugs & reduce loss incurred by software companies.
  - Achieved an F1 score = 91.5% on an ML cloud-based service, presented at a conference in Portugal and published.
- ***Student Researcher (*object detection for intelligent living spaces*), Smart Spaces Lab (on-campus)*** — ***Sep 2017 – Jul 2020***

Awards, Honors & Certifications

- 1st prize for Poster, Safety Pharmacology Society's Junior Investigator Poster Contest (affltd. Uni. Of Oxford, UK) — *Oct 2021*
- Student Award for Abstract, Safety Pharmacology Society's 2021 Annual Meeting (affltd. Uni. Of Oxford, UK) — *Sep 2021*
- Google Developers Certified TensorFlow Developer & Member of the TensorFlow Certificate Network — *Jul 2020*
  - *This exam tests knowledge of image recognition, object detection, NLP, convolutional neural networks.*
- Graduated with the gold medal and highest GPA among 380 students in my undergrad class. — *Jun 2020*

Select Projects – *Please see the project section of my website (uma-subbiah.github.io/) for a complete list*

- **Graduate Thesis Project**
  - Worked in the Computational Cardiovascular Science group at Oxford to develop an automated drug-induced heart abnormality classifier. Presented: (1) Safety Pharmacology Society Conference (2) Cardiac Physiome (Oct & Nov '21)
- **Undergraduate Thesis Project**:
  - Worked on the analysis & enhancement of deep learning architecture – Published/presented findings (Feb & Sept '20)
- **IBM's Data Science Professional Certificate** - Capstone Project:
  - Identified 3 most ideal locations to establish a hospital in London, using data collection, analytics, and machine learning.

Programming Skills

- **Technologies**: Machine/Deep learning, TensorFlow, PyTorch, Keras, Pandas, NumPy, Data Analysis and Visualization, SQL, Linux, Git & GitHub, .NET6.0, Postman, RESTful APIs
- **Languages**: Java, Python, C#, C, C++

Publications – My research publications include 1 book chapter, 6 conference proceedings and 2 posters.

- *Please see my Google Scholar profile at bit.ly/UmaSubbiah for a complete list.*