#### Contact

tahirsousa@gmail.com

www.linkedin.com/in/tahirsousa (LinkedIn)

### Top Skills

Natural Language Processing Java Machine Learning

### Languages

Konkani (Limited Working) Hindi (Professional Working) English (Native or Bilingual)

### Honors-Awards

TripAdvisor Hackathon (2nd Place)

### **Publications**

Document-level school lesson quality classification based on German transcripts

Minimization of Trilateration error in Mobile Terminal Positioning

Constructive Feedback, Thinking Process and Cooperation: Assessing the Quality of Classroom Interaction

A Field Study of Related Video Recommendations: Newest, Most Similar, or Most Relevant

Remote vehicle monitoring and controlling using NI LabVIEW

# **Tahir Sousa**

Software Development Engineer 2 at Microsoft Redmond

# Summary

I am currently a Software Engineer (SDE 2) at Microsoft. Previously, I graduated with a Master's degree in Computer Science from the University of Minnesota, Twin Cities.

While at Microsoft, I've worked mainly on Performance and Scalability challenges for Microsoft's Business Applications Group. My research interests are Recommender Systems, Machine Learning, Data Mining, Natural Language Processing, Artificial Intelligence. I have 2 years of research experience in research labs in Germany and considerable project experience in academic environments.

# Experience

#### Microsoft

4 years 2 months

Software Development Engineer 2 February 2019 - Present (1 year 7 months)

Redmond, Washington

## Software Engineer

July 2016 - February 2019 (2 years 8 months)

Redmond, Washington

Working on Microsoft's Citizen Application Platform as part of the Business Applications Group.

University of Minnesota

**Teaching Assistant** 

September 2014 - May 2016 (1 year 9 months)

Minneapolis, Minnesota

- \* Obtained full tuition waiver and funding for all 4 semesters of my studies.
- \* Undergraduate level course CSci 4511 (Introduction to Artificial Intelligence) for 3 semesters

- \* Guided 73 students in projects involved with AI game development, path planning, etc.
- \* Grading responsibilities for more than 300 students in total.
- \* Undergraduate level course CSci 4041 (Algorithms and Data Structures) for 1 semester
- \* Teaching Two 50-minute recitation sessions per week, each having 40-50 students
- \* Grading responsibilities for more than 300 students in total.

#### Amazon

Software Developer Engineer Intern June 2015 - August 2015 (3 months) Seattle, Washington

Software Developer Engineer Intern in the Trade-In team at Amazon. Trade-in is a product of Amazon which allows customers to sell back their old items to Amazon in exchange for a gift card.

Successfully launched two projects to improve Customer Experience.

Proposed new idea along with preliminary design for its implementation and consequently submitted Invention Disclosure application at Amazon, IDF reference: A28986

Technische Universität Darmstadt, Germany Research Assistant September 2013 - July 2014 (11 months)

Used Natural Language Processing, Machine Learning and Sentiment Analysis techniques to determine the impact of instructional features used by teachers on different outcomes such as achievement, motivation, emotion, cognitive activity, attention, etc. of students and to develop a trained model that can predict how good a lesson is, on several classroom quality measures, as defined by educational researchers.

We published two papers on this work (see below) - One in Interspeech, 2015 and the other in Journal for Language Technology and Computational Linguistics, 2015.

HAW Hamburg University of Applied Sciences Research Assistant July 2012 - July 2013 (1 year 1 month)

As a Full time Research Assistant in the Aero research group, I developed aircraft design tools "PreSTo" and "OpenVSP-Connect". This is meant to facilitate users in the various stages of Aircraft design. My work included correcting the bugs in the existing software, making new software user friendly and efficient in terms of speed and memory, linking the software to open source software (OpenVSP) by NASA and implementing intelligent algorithms in the code to provide maximum assistance to an amateur designer.

My work was presented by Prof. Dr. Dieter Scholz at the European Workshop on Aircraft Design and Education (EWADE), Sweden, 2013.

Team Drift, NIT Jamshedpur Head, electrical and software division 2010 - 2012 (2 years)

Designed and fit the electrical circuitry of the car and programmed the ECU (Engine Control Unit) to attain best performance and fuel efficiency. Built a wireless data acquisition system using a 2.4 GHz 802.11g outdoor wireless client bridge/access point module. Using NI LabVIEW software, raw data collected was processed and important parameters like RPM, tri-axial G-Force, Air-Fuel Ratio, etc. was displayed for remote monitoring.

Represented Team DRIFT at FSAE Australasia, Melbourne 2010 where we won the 1st Prize in the Cost Event.

Represented Team DRIFT at Formula Student, Silverstone UK, 2011 where we were ranked in the top 6 / 133 teams for the Airbus Teamwork Award.

Visit below link to view some media coverage received by Team Drift (Formerly Drift Racing Team):

https://drive.google.com/file/d/0B2v-KbZMYj8MVGtSRWIKd0pnVkU/edit?usp=sharing

# Education

University of Minnesota

Master of Science (M.S.), Computer Science (2014 - 2016)

National Institute of Technology Jamshedpur

Bachelor of Technology (B.Tech.) Honors, Electronics and Communications Engineering · (2008 - 2012)