Utkarsh Jain

utkarshj1303.github.io
utkarshj1303@gmail.com | 608.504.1332

EDUCATION

UNIVERSITY OF WISCONSIN, MADISON

B.S. in Computer Science
2017 - 2019
Cum. GPA: **4.0/4.0**

DELHI TECHNOLOGICAL UNIVERSITY

B.Tech. in Computer Science
2015 - 2017

LINKS

Personal Website:
utkarshj1303.github.io
Github:// **utkarshj1303**
LinkedIn:// **utkarshj1303**

COURSEWORK

GRADUATE
Computer Vision

UNDERGRADUATE
Introduction to Artificial Intelligence
Software Engineering
Intro to Operating Systems
Medical Image Analysis
Bioinformatics
Matrix Methods in Machine Learning
Computer Networks
Cryptography
Data Management for Data Science
Machine Organization and Programming
Data Structures
Design and Analysis of Algorithms

MOOCS
Machine Learning (Coursera) Deep Learning Specialization - Convolutional Neural Networks (Coursera)
Become an Android Developer from Scratch (Udemy)
Algorithms: Design and Analysis, Part 1 (Coursera)

SKILLS

PROGRAMMING
Most Frequently Used:
• C++
Frequently Used:
• Java • Python • C • Javascript • MATLAB
Familiar:
HTML • CSS • Android • SQL

LETS CHAT ABOUT

• Cool but lesser known data structures like Bloom Filters, Segment Trees
• Fun things to do in NYC, my favorite city
• Interesting/unique software optimizations
• Surprising applications of Machine Learning

EXPERIENCE

BLOOMBERG | Software Engineer
August 2019 – Present | New York, New York

- Identified bottlenecks by analyzing performance for different service configurations (number of threads etc) under different loads using a Jupyter notebook/Python.
- Leveraged existing optimizations (use of threads and fibers in C++ to effectively optimize an I/O bound workflow, redis caching etc.) and took into account considerations such as network load on downstream services to design solutions for increasing service throughput.
- Helped **increase the throughput of our main I/O bound C++17 service 3x** by reducing slow service calls.
- Contributed to a dashboard for monitoring service throughput.
- Gained a lot of experience in debugging legacy C++ services through quarterly sprint long rotations where I was responsible for all incoming client bugs.
- Contributed to the team wide migration efforts from our old to new stack by adding various features/fixing bugs.
- Worked with Product/UX teams and completely owned roll out of a feature I implemented during hackathon week to simplify user interaction with our frontend.
- Took various internal technical courses including a course in modern C++ and an initial 1.5 month long boot camp which included various topics including Python, Javascript, C++.

CHICAGO TRADING COMPANY | Software Engineering Intern
June 2018 – August 2018 | Chicago, IL

- Gained an in depth knowledge of options through an intensive one week course.
- Was solely responsible for my project which consisted of writing two small services in **Java** and a UI using **Java Swing** , all completely from scratch.
- My project which displayed information to traders using heatmaps which was put into production by the end of my internship and was heavily used by traders to capitalize on the volatility in Tesla options at the time.

PROJECTS

STEREO VISUAL ODOMETRY
Implemented a variation of the algorithm described in the paper Howard, Andrew. "Real-time stereo visual odometry for autonomous ground vehicles." using Python and OpenCV 3.0. The aim of the project was to plot the trajectory of a moving vehicle using a sequence of images captured by a camera on top of the vehicle.

ACADEMIC ADVISOR
Worked on an Android application that aggregates data from the UW Course Guide, Rate My Professors and UW Madison Course Grade Distribution. The app generated a list of courses based on the users selected range of professor rating, range of average gpa and L&S requirement which they wish to satisfy. A major part of my work on the project was developing the scrapers for Rate My Professors (Java) and the UW Madison Course Guide (Python).

ART GENERATION WITH NEURAL STYLE TRANSFER
Implemented a convolutional neural network for transferring the style of one image onto another as part of the Convolutional Neural Networks course on Coursera.

IMAGE CLASSIFIER FOR HEALTHY AND RETINOPATHY RETINAS
Implemented a classifier in MATLAB that differentiates between healthy and retinopathy retinas. I used various image analysis techniques to extract features unique to the retinopathy retinas and then used KNN and Logistic Regression for cross validation.

COMPETITIVE PROGRAMMING

I enjoy participating in coding competitions and solving algorithmic coding questions in my free time. I primarily use **C++** for coding competitions.

USA Rank 405	Codechef
Rank 74	OpenBracket Delaware - Invited to Onsite Round
Rank 260	Google Kickstart Practice Round 2018