

# AADITYA UPPAL

Software Engineer @ Microsoft, Azure | Seattle, WA | Exp. 6+ Yr

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## HIGHLIGHTS

- Focus areas: Web scale backend systems, Distributed Systems, Infrastructure, Scalable system design, Cloud Engineering, Full stack development
- Experienced Senior Engineer with fullstack experience, leading teams, end to end project planning, mentoring, active interviewer, fostering engineering collaboration & Inner source contributions
- Directorate of Technical Education Scholar
- Nationally ranked 37, Math Olympiad prize winner
- GPA: 3.89
- Samsung Research, Intern award - August 2015
- Proficiencies: C, C++, C#, Python, AngularJS, JavaScript, web stack, Android SDK

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## EDUCATION

### Texas A&M University, College Station - Texas

August 2014 - August 2016

Master of Science, Computer Engineering

GPA: 3.89 / 4

■ Focus Areas: Algorithms, Game Theory, C++, Artificial Intelligence, Data Science, Python

■ Multiple Hackathons, Projects

### National Institute of Technology - Hamirpur

August 2009 - May 2013

Bachelor of Technology, Electronics & Communication

GPA: 7.65 / 10

■ Served as President for University Technical Club SPEC, leading project collaboration initiatives and organising inter college tech festivals.

■ Scholarship: Directorate of Technical Education

■ Key Projects: Automated Dam warning system with GSM integration

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## EXPERIENCE

### Microsoft - Redmond, WA

**Software Engineer, Azure** - AD Authentication & Identity Gateway

February 2018 - Present

- Building web scale backend systems and services for cloud that handle billions of requests a day. Leading projects end to end for Azure Active Directory Auth, Mentoring
- Developing and designing scalable backend systems and service architecture for efficient traffic routing of authentication traffic
- Application layer reverse proxy that provides fault tolerance to services behind the proxy
- Developing and designing of a service resilient communication between various authentication and authorization services.
- C#, .NET, Powershell, Azure, Cloud services, VM scale sets, blob storage, Memcache

### Factset Research Systems - Norwalk, CT

**Software Engineer**, Core Web Frameworks

October 2016 - February 2018

- Built core framework and libraries with AngularJS for the next generation of high performance Web Applications at Factset. Key features: performance, modularity, faster development, enhanced user experience, efficient code reuse.
- Led initiatives in next gen Mobile framework project to build core UI components using VueJS and framework for better performance and UX
- Other projects included: design and development of components with cross browser compatibility, Initiative to ensure uniform functionality used across various Factset apps.
- AngularJS, Javascript, VueJS, web stack

## **Samsung Research & Development - New Delhi, India**

### **Software Engineer**, Multimedia Software

July 2013 - July 2014

- Core contributor to development of Media Player built on open source Gstreamer framework for Samsung's Industry leading Smart Television Middleware based on the Linux operating system Tizen.
- C, C++, Linux

## **Intel - Austin, TX**

### **Master's Level Graduate Intern**, Intel Atom CPU Software

January 2016 - August 2016

- Developed software for performance optimization of low power Intel Atom CPU
- Automated optimization of slack timings in different CPU paths, Built software to flag bottlenecks in CPU design components e.g. wire lengths, latch recoveries, parasitic capacitances etc.

## **Samsung Research & Development - Austin, TX**

### **System Architecture Intern**

May 2015 - August 2015

- Developed C++ backend systems to stress test android tests and random assembly instruction tests for Samsung's state of the art processor and interconnects. Debug & Validation team.
- Developed Android app to simultaneously preview camera multiple times along with taking pictures and multiple video playback.
- C++, Android SDK

## **Defence Research & Development Organization - Bangalore, India**

### **Engineering Intern**, Electronics and Radar Development Establishment (LRDE)

May 2012 - July 2012

- Completed design and development of Radar Controller Software on Power PC based hardware using Linux Kernel
- Designed Azimuth over Elevation System Stabilization of Radar on Aircraft using Fuzzy Logic
- C++

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## **PROJECTS**

### **Bus routing information application for Android**

- Built an android application that provides information of best available routes between two points that uses multi-threaded graph search to get faster results.

### **Survey Data Management, 2015**

- Developed an end to end Software As A Service. Involved working on legacy code using agile methodology to implement a service that displays a graphical view of user data aggregated through surveys and provides different hierarchy of users using Ruby on rails.

### **A heuristic based Blocks Word game solver, 2015**

- Used A-star search algorithm that optimized the search for goal state in game by implementing multiple heuristics to provide an optimal path solution.

### **Implementation and performance comparison of informed and uninformed search algorithms, 2015**

- Implemented heuristic based search algorithms like a-star, greedy best first and compared their performance with uninformed search like bidirectional, depth and breadth first search.

### **Twitter Trending News application for Android, 2014**

- Built an android application that provides twitter-based news feed according to latest trends on twitter.

### **Optimizing Cache performance using improved Dirty Block Index system, 2014**

- Optimized and Evaluated the performance of cache by removing the dirty bit from tag store and placing it in a separate dirty bit index.