AKHIL BHANDARU

U.S. Citizen
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Amazon, Software Developer Engineer

SEPTEMBER 2020 - PRESENT, SEATTLE, WA

- Backend engineer on the Alexa Shopping Grocery Cart team.
- Built and launched numerous APIs to bring the Amazon shopping cart experience to both the Amazon website and all Echo devices. My work has served over 70,000 customers every month since launch and has led to a 10% increase in purchase conversions. Just ask "Alexa, what's in my cart?"
- Designed, implemented, and launched the entire end to end clear cart experience, enabling customers to command their "Alexa, clear my cart". What was once an impossibility and a customer pain point is now just an easy conversation with Alexa.

Markforged, Software Engineering Intern

MAY 2019 - AUGUST 2019, CAMBRIDGE, MA

- Backend engineer on the Slicer team.
- Utilized web workers and AWS Lambda to parallelize 3D part pathing, leading to a customer slicing UPL reduction of more than 70%. My efforts further reduced total web browser load, i.e. less fan noise for customers.
- Migrated third party polygon clipping library API to WebAssembly, leading to a slicer roofing speed reduction of 40%. This migration work is now open source.

Cornell University, Computer Science TA

MAY 2018 – MAY 2020, ITHACA, NY

- CS 5430 Systems Security TA from 2019 - 2020. Worked under professor Fred Schneider, developing problem sets and projects around the field of cyber security, identity and access management, and developing highly confidential, high integrity, and highly available systems.
- CS 4820 Analysis of Algorithms TA in 2019. Worked under professor Eva Tardos, developing problem sets and projects around the field of algorithms: online algorithms, linear programming, and network flow. Furthermore, developed an online grading platform called Terrarium to aid in the automation of student program code review, validation, and academic integrity review.
- CS 3410 Computer Organization and Systems Programming from 2018 - 2019. Worked under professors Hakim Weatherspoon and Robert van Renesse in the Super Cloud research group. Along with usual TA work, researched molecular form to protein classification techniques, designing and developing a system for doing so efficiently over the cloud. My work continues to be used by computational biology professors at the University of Washington in Seattle.

Notable Projects

- (Terrarium) Auto Grading Platform: Built a widely used auto grading platform for Cornell University's college of engineering. Drastically improved time to grade by dynamically allocating multiple EC2 spot instances to parallelize grading script execution. Developed intuitive CLI for ease of use for new course staff members.
- (TIG) Distributed Database: Utilized 3-Phase Commit protocol to efficiently commit and store files in a distributed database. The system is both fault tolerant, supporting both node recovery, and continuation upon node failures. Provided companion GIT-like CLI.

Education

CORNELL UNIVERSITY
B.A. Computer Science and Mathematics
Class of 2020
GPA: 3.7

LYNBROOK H.S.
Class of 2016
GPA: 3.9

Honors

AIME QUALIFIER 2016
DEANS LIST, 2019, 2020
TA RECOGNITION AWARD, 2019

Skills

LANGUAGES
Java, Python, C/++, Java Script, SQL, Go, Scala, Coffee Script, Java Script, MATLAB, etc. Open to new languages!

TECHNOLOGIES
Git, Node, Mongo, GraphQL, PostgreSQL, Redis, Kafka, Zookeeper.

AWS: Lambda, S3, DynamoDB, CloudFront, CloudWatch, AppConfig

FRAMEWORKS
SOA, GRPC, REST, Spring, Guice, Angular4, React, Express, WebAssembly, etc.

SOFTWARE
GitHub, CI, GDB, Markforged's Eiger

Interests

Rock Climbing
Ultimate Frisbee
Science Fiction
Math and Scientific Computing
Baking Banana Nut Bread
Sleeping