

## YASH KOTHARI

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### PROFESSIONAL EXPERIENCE

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<b>Software Dev Engineer, Amazon</b>	<b>Seattle, WA</b>	<b>Sept 2022 – Present</b>
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*Supply Chain Optimization Technologies*

**Skills:** AWS CDK, EC2, S3, Airflow, EMR, monodck, cdk-lib, IAM, LPT, CloudFormation, GitFarm, code reviews, testing, debugging

- Led the development of AWS CDK-based infrastructure, resulting in improved deployment times and reduced developer work
- Created CDK packages and pipelines using monodck, cdk-lib, improving infrastructure provisioning and deployment efficiency
- Used AWS-cdk to create and run EMR clusters, boot EC2 images, store data on S3 improving infrastructure provisioning
- Administered CloudFormation stacks, automating key tasks for ML projects, improved deployment efficiency

<b>Lead Software Engineer, Lynx</b>	<b>Remote, USA</b>	<b>Jan 2023 – Present</b>
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**Skills:** Flutter, Dart, Database and System Design, Bloc/Cubit pattern, Firebase(Authentication, Storage, Database)

- Spearheaded the development of the platform, managing a team of app developers and overseeing all technical operations
- Led the architecture and infrastructure design, resulting in a scalable and robust platform capable of handling millions of users
- Developed a secure, and scalable user authentication and registration system, streamlining onboarding with multiple UI screens

<b>Software Engineering Intern, Google</b>	<b>Mountain View, CA</b>	<b>June 2022 – Sept 2022</b>
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*Google Maps (GEO)*

**Skills:** Java, Android, GWS, Borg, Protobuf, Dagger, Mockito, Mercurial, Screenshot and Unit-testing, Builder pattern, Debugging

- Developed a new Place of Interest feature for Google Maps Mobile(GMM), helping users get insights on their current location
- Utilized Borg(Kubernetes-like) to retrieve and verify data from GWS, using Java and Android development, catering 200M DAU
- Tested and debugged features extensively to ensure stability and high performance across diverse devices and networks
- Engineered a multitenant user interface on aGMM, featuring card layout, increasing user engagement and satisfaction

<b>Graduate Research Assistant, Squark/Northeastern University</b>	<b>Boston, MA</b>	<b>June 2021 – May 2022</b>
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**Skills:** Python, Pandas, NumPy, JavaScript, Typescript, Nest.js, Rest, Angular, NGRX, Google OAuth, GitHub

- Refactored and optimized legacy Python code improving efficiency, readability, and adherence to OOPs and PEP8 best practices
- Optimized AutoML and Time-Series Analysis code to help ML-focused organizations to transform data into quantifiable decisions
- Engineered a novel way to detect and handle outliers in time-series dataset improving accuracy of the training models by 20%
- Implemented connectors for Snowflake, BigQuery, SQL Server as microservices and pushed data from AWS S3 to these databases

<b>Python Developer Intern, Quidich Innovation Labs</b>	<b>Mumbai, India</b>	<b>June – July 2019</b>
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**Skills:** Python, C++, ORB-SLAM, Pandas, NumPy, OpenCV, Image stitching, Geometry, Computer Vision

- Analyzed implementation of Visual-SLAM and its application for real-time tracking and mapping utilizing drone footage
- Developed a feature to perform image registration on drone footage to help reuse saved spatial data of familiar sites
- Slashed 2 hours of system calibration time by reinstating drones in familiar sites by reusing map checkpoints
- Incorporated deep-learning techniques to organize a client-friendly film catalog, accelerating client retention and satisfaction

### PROGRAMMING SKILLS

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**Programming Languages:** Python, Java, C, C++, R, HTML, CSS, JavaScript, MATLAB, Octave, XML, JSON, Ruby, Dart

**Databases Technologies:** MySQL, SQLite, PostgreSQL, MongoDB, OracleSQL, Riak, HBase, Firebase, AWS DynamoDB

**Cloud Skills:** IAM, CDK, AWS Lambda, S3, EC2, AWS Airflow, EMR, CloudFormation, SNS, SQS, Borg, GWS, Linux/UNIX

**Libraries:** NumPy, Pandas, Tkinter, TensorFlow, Matplotlib, Pytorch, OpenCV, Express.js, Node.js, React, GraphQL, Mockito, Mocha

**Frameworks:** Spring, Springboot, Angular, NGRX, REDUX, Flutter, Dagger, Spark, NestJS, Bloc, Cubits

### EDUCATION

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<b>Khoury College of Computer Sciences, Northeastern University</b>	<b>Boston, MA</b>	<b>May 2022</b>
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*Master of Science, Computer Science*

**GPA: 4.00/4**

**Related Courses:** Algorithms, DBMS, Web Dev (MERN Stack), Program Design Paradigm, Foundations of Software Engineering

<b>Sardar Patel Institute of Technology, Mumbai University</b>	<b>Mumbai, India</b>	<b>Sept 2020</b>
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*Bachelor of Engineering, Electronics and Telecommunications*

**CGPA: 8.84/10**

**Related Courses:** Structured Programming Approach (C), Object Oriented Design(Java), Data-Structures, ML and AI, Cloud computing

### ACADEMIC PROJECTS

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**Intelligent Traffic Management System** (Undergraduate Final Year Project): <https://www.youtube.com/watch?v=dizimaXgLZQ>

- Chaired a team of 3 to devise a sophisticated system to improve rush-hour traffic problems faced by metropolitan cities
- Secured incubation in SPTBI incubator to create a prototype for the pitched traffic management system
- Set up a computer vision pipeline based on the state-of-the-art, real-time object detection system YOLO, to compute traffic density on roads leveraging real-time images clicked from cameras installed at traffic junctions
- Reduced cost of hardware by 50% Integrated machine learning algorithms to synchronize subsequent traffic signals

#### Codeify:

- Creating a cutting-edge web platform with a massive library of videos from YouTube of various courses to aid online learning
- Using Angular/NGRX, created a Software as a Service (SaaS), allowing users to buy courses online that include videos, a progress bar that records user's progress throughout the course, and quizzes to evaluate user's knowledge