




# Karthik Chintamani Dileep

☎ +1 (857) 313-2285 ✉ [chintamanidileep.k@northeastern.edu](mailto:chintamanidileep.k@northeastern.edu)  [cd-karthik](#)  [karthikcd7](#)  [karthikcd7.github.io](#) [portfolio]

## Education

**Northeastern University** - Boston, MA  
**Khoury College of Computer Sciences**

Master of Science in Computer Science

Coursework: Algorithms, Design Patterns, Cloud Computing (AWS), Web Development, Android Development, Information Retrieval, Database Management

September 2022 - Present

Expected Graduation: May 2024

**GPA: 4.0/4.0**

**Dayananda Sagar University** - Bangalore, KA

Bachelor of Technology in Computer Science

August 2018 - June 2022

GPA: 8.76/10

## Technical Skills

**Languages:** Java, Python, C++, Javascript, SQL, Bash / Shell, HTML, CSS

**Frameworks/Libraries:** React, Django, Redux, Flask, jQuery, AJAX, JSON, SOAP, XML, Bootstrap, Tensorflow, Git, Linux, Mac OS, Windows, Android Studio

**DevOps tools and Development:** AWS, Jenkins, Docker, CI/CD, ElasticSearch, Kibana, Agile, Scrum, Jira

**Databases:** MySQL, MongoDB, NoSQL

## Experience

**Addgene Inc - Software Engineer Co-op**

May 2023 - December 2023

- Leveraged complex **ORM** queries to optimize **Django** backend with CI/CD pipelines for 1000+ customers.
- Led agile test-driven development (**TDD**) for a resilient, full-stack application, incorporating **REST APIs** using **JavaScript**, and documented over 100 test suites.
- Collaborated with cross-functional teams, product management to build modern, scalable web application.
- Participated in code reviews to strategically prioritize deliverables and achieve 100% product goals.
- Researched 10+ Large Language Models (**LLM**) to streamline search results, personalize product recommendations.

**Persistent Systems - Software Engineer Intern**

February 2022 - July 2022

- Engineered document verification systems incorporating natural language processing (**NLP**) and ML.
- Utilized **Docker** containers to containerize enterprise applications, resulting in a 30% reduction in deployment time.

**MARG Innovations - Software Engineer Intern**

July 2020 - September 2020

- Smart Verification:** Deployed and scaled **ETL** data processing pipeline using **Python**, **Flask** microservices, verifying user images with over 90% accuracy for efficient high volume verification.
- App User Insights Dashboard:** Developed a web dashboard to analyze over 1000 reviews using **Topic Modelling** and **N-gram frequency distributions** to identify the dominant opinions among users.

## Projects

**LearnFlow - Canvas Clone** | *NodeJS, ReactJS, Redux, MongoDB*

September 2023 - December 2023

- Architected full-stack learning management system using **React.js** for front-end, **Node.js** and **MongoDB** on the back-end to enable platform reliability, scalability for course creation, monitoring with analytics capabilities.
- Leveraged **AWS** services including **EC2**, **S3**, **DynamoDB**, and **CloudFront** to ensure scalability, reliability, performance optimization, and monitoring.
- Used **jQuery** and **REST APIs** for rapid prototyping and development of UI features without backend dependency.

**Trader360 - Stock Portfolio Management** | *Java, MVC, SOLID Principles*

September 2022 - December 2022

- Created a desktop stock portfolio management application utilizing **Model View Controller (MVC)** architecture principles and **Java Swing** for an intuitive, interactive GUI.
- Adopted object-oriented design (**OOD**) patterns like **Factory**, and **Builder** to create extensible architecture.
- Wrote over **170 Unit tests** to validate functionality across multiple components, achieving over 90% code coverage for robust end-to-end testing across multiple user workflows.

**Velocity Commerce** | *C++, Graphs, Object-Oriented Programming (OOP)*

January 2023 - May 2023

- Led the creation of a highly adaptable **C++** server architecture by leveraging Object-Oriented Programming (**OOP**) principles. This involved designing **cache**, **storage**, **routing**, with a focus on clean interfaces and scalability.
- Implemented advanced optimization strategies in **C++** to enhance user experience on e-commerce platform with servers distributed across multiple regions.

## Publications

"Skeletal Bone Age Determination using Deep Learning" - Published in the International Conference on Ambient Intelligence in Health Care (ICAIHC 2022), 15th-16th April 2022.