Karthik Chintamani Dileep

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Education

Northeastern University - Boston, MA   September 2022 - Present
Khoury College of Computer Sciences   Expected Graduation: May 2024
Master of Science in Computer Science   **GPA: 4.0/4.0**
Coursework: Algorithms, Design Patterns, Cloud Computing (AWS), Web Development, Database Management.

Dayananda Sagar University - Bangalore, KA   August 2018 - June 2022
Bachelor of Technology in Computer Science   GPA: 8.76/10

Experience

Addgene Inc - Software Engineer Co-op   **May 2023 - December 2023**
- Leveraged complex **ORM** queries, **MVT** architecture strategies to develop and optimize multi-tenant **Django** backend for internal management software using **CI/CD pipelines**, serving 1000+ customers.
- Drove agile test-driven development of robust, full-stack SaaS using server-side rendering **REST APIs** and **JavaScript**. Authored documentation of 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 ensure to achieve 100% product goals.
- Researched 10+ generative AI, large language models (**LLM**) to enhance user experience by enabling personalized product recommendations and relevant search results without extensive user searching.

Persistent Systems - Software Engineer Intern   **February 2022 - July 2022**
- Engineered system to automate 50K document verifications using NLP and big data analytics.
- Programmed core functionalities of enterprise level client-server application utilizing **Python**, **SQL** and advanced **machine learning (ML)** with cutting-edge technology, boosting accuracy to 93% to enhance security protocols.
- Reduced cross-platform deployment time by 40% and improved availability by pioneering transition to microservices architecture using Docker containers and orchestration.

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 (LDA)** 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 development **Node.js** and **MongoDB** on the back-end to enable platform reliability, availability, and scalability for course creation, monitoring with analytics capabilities.
- Leveraged **Redux** to improve dashboard load times by 40%, and enabled real-time analytics that drove student engagement.
- Used **jQuery** and **REST API**s 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** architecture principles and **Java Swing** for an intuitive, interactive GUI.
- Adopted object-oriented design patterns like **Factory**, **Builder**, and **Command** patterns to create a modular, extensible architecture - enabled seamless integration of 4 new features including analytics dashboards and trading.
- 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.

Technical Skills

Languages: Java, Python, C++, Javascript, SQL, Bash / Shell, HTML, CSS
Frameworks/Libraries: React, Django, Redux, JSON, SOAP, XML, Flask, jQuery, AJAX, Bootstrap, Selenium, Tensorflow, Git, Linux, Mac OS, Windows
Databases: MySQL, MongoDB, NoSQL
DevOps tools: AWS, Jenkins, Docker, CI/CD
Software Development: Agile, SCRUM, Jira

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.