

Dhiren Chotwani

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EDUCATION

Santa Clara University, School of Engineering, Santa Clara, CA

Sep. 2022 - Jun. 2024

Master of Science in Computer Science & Engineering

GPA: 3.80/4.0

Related Coursework: Design & Analysis of Algorithms, OO Programming, Advanced Operating Systems, Database Systems, Computer Architecture

University of Mumbai, Vivekanand Education Society's Institute of Technology, Mumbai, India

Aug. 2017 - Oct. 2020

Bachelor of Engineering in Computer Science

GPA: 3.87/4.0

Maharashtra State Board of Technical Education, Vivekanand Education Society's Polytechnic, Mumbai, India

Jun. 2014 - Jun. 2017

Diploma in Computer Technology

Score: 87.7%

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Python

Web Development: HTML, CSS, JavaScript, jQuery, Bootstrap

Frameworks: Flask, Node.js, Express.js, Vue.js, React.js, Redux, Angular, Typescript, Spring Boot, PyTorch, JavaFX, React Native, Quasar, Webpack

Databases: MSSQL, MySQL, GraphQL, PostgreSQL

Cloud: Kubernetes(K8's), Amazon Web Services (AWS), Azure, Azure DevOps, Helm, Docker, Datadog, Spinnaker, Vercel, ArgoCD, Retool, CircleCI

Distributed Systems: Kafka, RabbitMQ, Redis, gRPC, Protobuf, Auth0

Misc.: Apache Server, Cypress, Git, Github, JIRA, Selenium, Snyk, Sonarqube, PowerBI Desktop, TensorFlow, Domo Dashboard

EXPERIENCE

Software Development Engineer II | Fidelity Information Services

Aug. 2024 - Present

- Developed a **high-performance, multi-threaded** algorithm using Python to automate bulk account operations (closing, freezing, unfreezing) for fraudulent accounts in real time, reducing processing time by 60%. The system handles **3,000 QPS with 99.9999%** uptime through concurrent API calls to i2c, Persona, and Unit21, while maintaining **p99 latency under 100ms**.
- Built a full-stack customer note logging system with **enterprise-grade AWS KMS Envelope encryption** for secure PII storage and **Redis caching** for optimized performance. Achieved **sub-50ms database retrieval times** processing **1,000+ daily notes** using React, Python Flask, and PostgreSQL.
- Engineered robust API communication layer using Python requests.Session() with **connection pooling** and **exponential backoff** to resolve middleware-to-backend service failures. Eliminated connection overhead bottlenecks, reduced request drop rates from **15% to <1%**, and improved backend service throughput by **40%** through efficient **connection reuse patterns**.

Software Engineer Intern | Indus Valley Partners

Jun. 2023 - Aug. 2023

- Built a Risk Management Tool for an Investment Firm, integrated with microservices based on **Java Spring Boot**. Utilized **RabbitMQ** for async data processing workflows and implemented **role-based access** to control user access across different platform features.
- Engineered and deployed a tailored **Kanban** board using **Typescript React** aimed at refining credit task monitoring and agreement management. Seamless integration with CRM systems for triggering automatic workflows and approvals.

Software Engineer | Indus Valley Partners

Jul. 2020 - Aug. 2022

- Engineered and spearheaded the development of an internal Risk Group Web application for a **\$29 B** investment firm. Leveraged the cutting-edge capabilities of **Angular** for the frontend, seamlessly integrated with a high-performance **Java Spring Boot** backend.
- Led the development of efficient **Python** scripts for the Market Performance Data Engineering Team, employing **PySpark** for ETL (Extract, Transform, Load) processes and ensuring data accuracy through rigorous testing using pytest. Orchestrated the integration of this data into **MSSQL** using **SSIS** Packages, ultimately utilized by **SSRS** for report generation.
- Constructed **Azure Data Factory Pipes/ARM Templates** to pull large volumes of data from various sources and load into **Synapse** Workspace resulting in a **52% increase in ETL speed** and enhanced scheduling capabilities.
- Implemented and maintained CI/CD pipelines using tools like Snyk, Sonarqube, and Azure Pipelines to automate build, test, and deployment workflows, integrating with GitLab and Azure for static code analysis and auto-deployment.
- Developed **Power App** solution with numerous dashboards transforming conventional fund reporting systems. Leveraged Microsoft Flow & Integrated MS Teams for hierarchical approval processes and automated workflows resulting in 70% reduction in time from **176 hrs to 56 hrs**.
- Built a **CMS** for a Document Repository using **Vue.js** and **Node.js** featuring autocomplete select, tag selector, drag and drop role access, etc.
- Engineered an Earnings Analyzer tool using **Angular/Typescript**, integrated with **Charts.js**. Created UI test cases with **Cypress** (Vue.js) & **Selenium** (React/Angular) for Unit & Integration testing employing Test Driven Development

PROJECTS

Coreveillance, Platform Independent App | React Native, MySQL, OpenCV, Deep Learning, Neural Network, TensorFlow June 2019 - May. 2020

- Implemented an advanced surveillance system to detect anomalous activities and send alerts based on real-time video analysis using machine learning. Publication: Springer International Conference on Information and Communication and Technology for Intelligent Systems 2020, Vol 2, Issue 2 DOI: 10.1007/978-981-15-7062- 9_68.