

Gokhulnath Thirumaran

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EDUCATION

University of Illinois Chicago <i>Master of Science in Computer Science</i>	Chicago, Illinois May 2026
Sri Sivasubramaniya Nadar College of Engineering <i>Bachelor of Engineering Computer Science & Engineering, CGPA: 3.4/4</i>	Chennai, India June 2022

SKILLS

- **Languages and Tools:** Java, Python, C, C++, SQL, JavaScript, HTML, CSS, NodeJS, Git, Android Studio, Raspberry Pi
- **Libraries and Frameworks:** MERN, Django, SpringBoot, VueJS, Docker, Postman, Junit, Selenium, Flask, Next.js, Redux, PyTorch, Keras, TensorFlow, OpenCV, PostGres, RESTful APIs, GraphQL, JWT, OAuth, SonarQube
- **Cloud & Devops:** AWS, Google Cloud, Firebase, DigitalOcean, Vercel, Heroku, Netlify, Oracle, Hugging face, Docker, Terraform, GitLab CI, GitHub Actions, Datadog, Splunk, Git, NPM, Yarn.

WORK EXPERIENCE

Chargebee (A billing SAAS fintech) <i>Software Engineer (Atomic Pricing Team)</i>	Chennai, India Dec 2023 – Aug 2024
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- Built a microservice from scratch called Atomic Pricing as a full stack developer, a no-code microservice using Spring for backend API development and Next.js for a responsive frontend, hosted on Vercel for scalability and performance.
- Implemented RESTful APIs to enable real-time pricing updates and dynamic page generation for SaaS clients.
- Worked closely with cross-functional teams, including product development, marketing, and client success, to refine and optimize the product for market readiness, ensuring seamless alignment with customer needs and business objectives.
- Engaged in customer acquisition, support, and bug report calls, managing the customer feedback funnel through regular email communication to address inquiries and ensure continuous product improvement.
- Spearheaded the development and release of key features, ensuring timely product updates and improvements.

<i>Software Engineer (Embedded Payments Team)</i>	<i>August 2022 – Aug 2024</i>
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- Integrated services like refunds, onboarding merchants, front and back-end payment dashboards, and ACH integration
- Built a payments statistics dashboard and onboarded a new payment facilitator into payments for the billing product by enabling a multi-Payment Facilitator system; implemented an account updater for all payfac
- Reduced failure rate by over 80% by building an AI-based smart routing algorithm which also eliminates pre-predicted failures as part of an internal hackathon
- Responsible for full stack development and creating test cases for the features
- [Certificate of Recognition](#) for extraordinary performance (Chargebee) *August 2023*

<i>Software Engineering Intern</i>	<i>January – June 2022</i>
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- Implemented an in-house reconciliation application; began developing a refund and email notification system

Independent Projects (Portfolio) <i>Freelance Web and Software Developer</i>	Chennai, India <i>November 2020 – Present</i>
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- Executed 8 projects on websites and product development for small to large businesses across sectors such as healthcare, e-commerce, design, advertisements and marketing, travel and logistics
- Developed a variety of websites with tight and complex design constraints, such as a dynamic and no-code-editable website, e-commerce web and mobile applications, and portfolio websites for clients based in the UK and US
- Extensively used and developed expertise in full stack development: MERN, Spring Boot, Vue.js, React, Next.js, AWS deployment, SEO management

CONFERENCE PAPER PRESENTATIONS

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- **Thirumaran, G.**, Mahendran, G. and Shanckin, S., 2023, Gaussian Processes for Automating Model Selection, 3rd International Conference on Signal & Data Processing 2023; VIT Bhopal, November 3-4 2023 (Paper accepted to be published by Springer in the conference proceedings)
 - Mahendran, G., **Thirumaran, G.**, Ali, S. I., Jadon, V. R., 2023, NAS for Automated ML Deployment on Extreme Edge Devices, 3rd International Conference on Signal & Data Processing 2023; VIT Bhopal, November 3-4 2023 (Paper accepted to be published by Springer in the conference proceedings)
 - Mahendran, G., **Thirumaran, G.**, Srivastava, P., and Riwayat, D., 2023, A Computational Analysis of Climate Change Sentiment on Social Media, 3rd International Conference on Signal & Data Processing 2023; VIT Bhopal, November 3-4 2023 (Paper accepted to be published by Springer in the conference proceedings)

RESEARCH EXPERIENCE

Enhanced modeling of wine preferences using physicochemical properties August 2023 – July 2024

- Developed a poor-dataset prediction model for best chemical proportion prediction using deep learning and machine learning methods; collaborated with faculty in VIT University, Chennai and IIT Guwahati
- Developed an enhanced predictive model for wine taste preferences, surpassing benchmarks established in referenced research using one shot learning, SVM and multi perceptron neural network

ACADEMIC PROJECTS

Tumor size estimation and 3D model viewing using deep learning | TensorFlow, Keras, OpenCV January - August 2022

- Studied overall efficacy and accuracy of using deep learning to estimate tumor size by using DICOM scan images
- Used transfer learning along with VGG CNN model and ResUNet model to detect, segment and map multiple tumors in a single brain with 92% accuracy

Real-time data extraction using OCR | Android Studio, Java, Firebase, Tesseract, ML, JSON, Git January - July 2021

- Led a team of 3 to develop an Android application to scan drivers' licenses and convert card information from JSON to API format using images of the documents to collect and verify a person's identity easily
- Used Optical Character Recognition (OCR) to conduct real-time data extraction; currently supported in iOS and Android, can be scaled up so it can be used on the web

Zinger: an in-campus food delivery app | Android Studio, Java, XML, Firebase, Rest API, JSON, Git March - October 2020

- Developed a food delivery and pick-up service mobile app for college and company campus

Automated attendance system | Deep Learning, TensorFlow, OpenCV, Python January - December 2019

- Designed an attendance system application that automates attendance for students by recognising faces and RFID tags (in student ID cards) to note the attendance of students accurately and efficiently, and update the professor's attendance database

ENTREPRENEURSHIP

The Savvy Saints (event-management initiative) | Co-founder

- Led a team and organized 20+ events, which included college cultural events, talk shows, corporate events, farewells, etc. and generated a revenue of USD 50,000 in 2022
- Developing a product to visualize event spaces and conduct virtual tours of venues for customers to review these spaces

The Scribble Art (early phase) | Co-founder

- Founded a design company to help creators brand and merchandise clothing, stickers, posters, and prints
- Developed an AI-powered software for customers without design knowledge to create their clothing brands and digital prints

PROFESSIONAL DEVELOPMENT (COURSES)

- Front-End Web UI Frameworks and ToolsL Bootstrap 4; Data Science Orientation; Programming Foundations with JavaScript; HTML and CSS (Coursera) 2020
- Programming in C/C++ (FIIT); Programming in JAVA and Python for Data Science (NIIT Academic Council) 2018

EXTRACURRICULAR ACTIVITIES

Lakshya (Entrepreneurship Development Cell of Sri Subramaniya Nadar College)

Organizer (2019-2021), Core member (2021-2022) June 2019 – June 2022

- Conducted 20+ events, including college-wide events that included management of 200+ volunteers, such as Udhaan (market simulation for products and bids) and SYCon (a TedX-style talk show) with CEOs, film actors, and entrepreneurs
- Led a team to develop a ticketing application with features (admin dashboard, referrals, buying and selling tickets, transfer tickets, entry and exit validation, etc.) for our college, with 100% uptime; achieved sales of 1,000+ tickets within a month

Member of Photography Club, Android and Web Development Club

July 2018 – June 2021

VOLUNTEERING

Lure of Life

Chennai, India

Co-founder

July 2020 – present

- Led a team of 15 volunteers in teaching communication skills to 20 homeless and slum-dwelling children across 5 neighborhoods through "The Bridge Project"

Ullas Trust

Thiruporur, India

NSS student volunteer

November 2018 – June 2022

- Educated government school students on soft skills like communication, personality development, teamwork, leadership and management skills; taught multiple classes at a government-run higher secondary school for girls in Thiruporur, Tamil Nadu