

Ashwatha Easwaran Sureshkumaar

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EDUCATION

Northeastern University | GPA – 3.7/4.0

Master of Science in Software Engineering Systems

Course: Web Development (React, Angular), Database Design, Object Oriented Design and Programming (JAVA)

Expected Dec 2026

Boston, MA

PSG College of Technology | GPA – 3.12/4.0

Master of Science in Software Systems (5-years integrated)

Course: Data Structures and Algorithms, Cloud Computing, Web Development, Operating Systems, Agile Development, C, C++

Apr 2023

Coimbatore, TN

TECHNICAL SKILLS

Programming & Frameworks: Python, Java, JavaScript, Typescript, C#, C, C++, SQLAlchemy, Sequelize

Cloud & Databases: AWS (S3, Lambda, API Gateway), Azure, SQL, PostgreSQL, MySQL, NoSQL

Frontend & Backend Technologies: HTML, CSS, Node.js, Vue.js, React, Angular, REST APIs, JSON, PHP

Development & Tools: Git, GitHub, Docker, Linux, JIRA, Visual Studio, Test-Driven Development (TDD)

EXPERIENCE

Caterpillar Inc - Associate Software Engineer (Full-Stack)

Jan 2023 - Jul 2024

Tech Stack: Linux, Vue.js, Node.js, JavaScript, C#

Chennai, TN

- Prototyped a standalone **Linux-based UI application** using **Vue.js**, **Bash scripting**, streamlining USB ID allocation while adhering to Agile development practices, improving **data consistency by 15%** and operational reliability for end-users
- Delivered a high-quality **bug-free application** within four months, earning **team-wide recognition** by implementing Continuous Integration with automated tests and **CI/CD pipelines**, reducing **post-deployment issues by 30%** and ensuring a seamless user experience
- Led the complete development life cycle of **3+ application versions**, collaborating with **4 cross-functional teams** to design, build, and deploy **15+ features**, incorporating design patterns to improve code maintainability and scalability
- Resolved critical front-end and server-side bugs across **6 applications**, achieving **100% on-time delivery** and boosting **product performance by 20%**, while effectively communicating technical decisions to cross-functional teams
- Implemented an **optimized timeout mechanism in C#**, effectively preventing empty GPS data responses, increasing **system reliability by 30%** and providing actionable insights for system diagnostics

Anand Rathi Wealth Services Ltd (Fintech) - Software Engineer Intern

May 2020 - Nov 2020

Tech Stack: Python, Node.js, REST API, Sequelize, SQLAlchemy

Mumbai, MH

- Designed scalable **REST APIs** using **Node.js** and **Python**, handling over **10,000+ stock broker's daily transactions** with **99.9% availability** on **AWS Cloud Services**
- Improved **database query efficiency by 20%** the use of **ORM frameworks** like (**Sequelize** and **SQLAlchemy**), reducing query execution times by **15%**
- Created a **reporting algorithm** with a Python file conversion library, generating hierarchical **PDF reports** for **500+ employees** and automating **email distribution** with **25% higher accuracy** enabling seamless reporting pipelines
- Refined **50,000+ records** through **data modeling, analysis and cleansing** with **Pandas** and **NumPy**, resolving **95% of discrepancies** and supporting the company's digital transformation initiatives, providing a business objective approach that was appreciated by leadership
- Documented comprehensive API usage and integration guides for **5+ internal teams**, collaborated with internal teams to ensure seamless deployment on **AWS** while maintaining version control with **Git**

PROJECTS

Food Factory App | Node.js, Express.js, Sequelize ORM, MySQL, Docker

Mar 2022

- Built a web app using **Node.js**, **Express.js**, **Sequelize ORM**, **MySQL**, and **Docker** managed on GitHub used by **10+ test users** to handle user authentication, order tracking, and inventory management improving process efficiency by **25%**
- Constructed an inventory system with **Sequelize ORM** and **MySQL** that flagged **15+ unprofitable items** ensuring cost control for the mock business

Research Paper Search Engine | Python, BeautifulSoup, Requests, NumPy, Pandas

Jun 2022

- Created a Python-based search engine using **BeautifulSoup**, **Requests**, **NumPy**, and **Pandas** that scraped **100+ research papers** from Google Scholar and PaperWithCode
- Ranked and displayed the top **10 papers** by citation count with metadata improving search efficiency by **20%**

Virtual Study Group Platform | Java, JavaFX, Chat Server, File Handling

Nov 2024

- Developed a **study group platform** using **Java**, **JavaFX**, **Chat Server**, and **File Handling** managed on GitHub with features like **private messaging**, **group chats**, and a **group-specific resource library** supporting file uploads/downloads and managing **20+ test files**
- Integrated an **interactive calendar** for event management with **20+ test events**, a **chat server** for real-time communication, and **group invitations** with continuously updated group list updates