Ruchita Potamsetti

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Education

University of Florida	August 2024 – May 2026
Master of Science, Computer Science, CGPA: 3.88/4.0	*Gainesville, Florida*
Savitribai Phule Pune University	August 2018 – May 2022
Bachelor of Engineering, Computer Engineering, CGPA: 9.35/10.0	*Pune, India*

Technical Skills

Languages and Frameworks: Python, C/C++, JavaScript, Golang, TypeScript, Java, React, Next.js, FastAPI, Flask, SQLAlchemy, HTML, CSS, React Native, TailwindCSS, Tkinter, Dash, Chainlit, OpenAI API, PyQt6, Node.js

Frameworks & Backend: Spring Boot, FastAPI, Flask, REST APIs, Node.js, React, Next.js, React Native, HTML, CSS, Monai, Service-Oriented Architecture

DevOps & Cloud: Docker, Kubernetes, Jenkins, Git (Distributed Version Control system), Amazon Web Services (AWS), Azure, Google Cloud Platform (GCP), Oracle Cloud Infrastructure (OCI)

Databases & Tools: MySQL, Postgres, MongoDB, OracleDB, Firebase, Postman, Jira, Linux, Bash, SQL Server

Monitoring & Automation: PyTest, Selenium, GitHub Actions, GitLab, CI/CD (Continuous Integration/Continuous Delivery), Unit Testing, Regression Testing

AI & ML: LLM, Retrieval-Augmented Generation, Prompt Engineering, Model Evaluation, NLP Workflows, Scikit-learn, TensorFlow, PyTorch, Pandas, Matplotlib, SciPy, NumPy

Other: Distributed Version Control System, Agile Development, Object-oriented programming, Advanced data structures, Algorithm development, REST API, Microservices, Software Development Lifecycle, System Design, Scalability, Design patterns

Experience

Software Development Intern, **University of Florida**   January 2026 - Present
- Optimized downstream computation by 35% by implementing Dash and Plotly-based interactive visualizations with Python callbacks, enabling early-stage data in a Tkinter-integrated processing pipeline.
- Built scalable cluster-level and heatmap visualization modules processing 10K+ biological data points by leveraging Pandas for data manipulation, NumPy for matrix operations, and implementing lasso selection tools for real-time exploratory investigation.
- Coordinated with researchers to translate domain-specific research needs into reliable, user-facing tooling deployed in Linux-based research environments.

Software Developer - Student Assistant, **University of Florida**   July 2025 - December 2025
- Developed a multi-agent LLM-driven automation pipeline using Python, LangChain, and GPT-4o to generate, refine, and validate data processing scripts, reducing manual scripting time by 60% and accelerating research workflows for computational biology projects.
- Adapted and validated a 13C metabolic flux modeling algorithm on institutional datasets by leveraging HiPerGator's HPC infrastructure and SLURM job scheduling for distributed computing, processing 50+ high-throughput experiments and improving computational efficiency by 40%.

Software Engineer, **Ness Digital Engineering Ltd.**   February 2023 - July 2024
- Migrated enterprise-scale Pearson assessment platform to Next.js and Material UI by implementing responsive component libraries and TypeScript interfaces, delivering secure features for 50K+ users.
- Engineered and optimized RESTful microservices using Node.js and PostgreSQL by implementing query indexing, connection pooling, and caching strategies with Redis, improving system stability by 20% and reducing API response times by 35%.
- Authored unit tests and led refactoring efforts for core navigation modules, lowering production defects by 15% and improving long-term maintainability through cleaner architecture.
- Resolved critical production issues by debugging complex JavaScript/TypeScript codebases, implementing monitoring solutions with Sentry, and collaborating with QA teams in Agile sprints using Jira and Git-based workflows.

Web Development Intern, **Kids Galaxy Ltd.**   November 2020 - January 2021
- Created a modular learning management system components and integrated Django REST APIs, improving platform responsiveness and mitigating integration time by 25%.
- Redesigned UI/UX components increasing learner engagement by 30% and reducing bounce rates by 20% for 1,000+ users.

Projects

MediConnect: AI Driven Healthcare Triage Platform | React, Python, Gemini API, REST APIs   [Github](#)
- Architected an AI-powered healthcare triage system that analyzes symptoms, urgency, location, and insurance constraints to route patients to appropriate care.
- Introduced a conversational voice-enabled agent using LLMs and speech recognition, shortening triage time from 8 mins to under 3 mins.
- Implemented a smart ranking and matching engine with geospatial filtering and fallback logic to prioritize in-network specialists and emergency care.

Multi-Tool Research Assistant | Python, Streamlit, NLP, Groq, PyMuPDF   [Github](#)
- Constructed an AI research assistant that automates literature review workflows, cutting document review time by 70%.
- Engineered NLP pipelines for document classification, summarization, related-work retrieval, and idea generation.
- Optimized processing pipelines to handle 50–100 page PDFs in under 10 seconds, supporting scalable academic and industry use.

Televitality Connect: Virtual Care Delivery Platform | Go, Node.js, React, PostgreSQL, WebRTC   [Github](#)
- Delivered a full-stack telemedicine platform supporting appointment scheduling, EHR management, and real-time video consultations.
- Modeled normalized PostgreSQL schemas for patients, providers, and billing data to improve data integrity and security.
- Achieved 80% automated test coverage using Jest, Cypress, and React Testing Library, decreasing analysis provider operational overhead by 15%.