

# MANNAN SHUKLA

Robbinsville, NJ • US Citizen

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## TECHNICAL SKILLS

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JavaScript, TypeScript, Python, Java, C, SQL, Next.js, React, Node, MongoDB, Redis, Supabase, PostgreSQL, PyTorch, Spring Boot, FastAPI, LangChain, Whisper, Unsloth, Hugging Face, YOLOv8, Docker, Kubernetes, AWS Solution Architecture, Nginx, Linux sysadmin, Nix, Git, Bootstrap, Twilio, Vercel, OpenCV

## EXPERIENCE

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### Founding Engineer

Dec 2021 - Present

*Hridyam Inc*

*Princeton, NJ*

- Led development of HIPAA-compliant telehealth platform using **AWS** services including **ECS**, **RDS**, **S3**, and **CloudFront**
- Implemented robust IAM policies and encryption protocols following healthcare security best practices
- Provided digital transformation consulting to 5+ healthcare clients, modernizing legacy systems with cloud-native solutions

### Independent Researcher — SuperAgent

Apr 2024 - Dec 2024

*Rutgers University*

*New Brunswick, NJ*

- Independent Research under Prof. Yongfeng Zhang developing novel agent recommendation system for **LLM**-based OS
- Achieved 83% accuracy compared to **GPT-4** ground truth using 1B parameter model, approaching 86% accuracy of 8B model
- Employed transfer learning through **LoRA** fine-tuning via **Unsloth** for small local parameters to approach **GPT-4** performance

### Partnerships + Business Development

Feb 2025 - May 2025

*Nas.io*

*New York, NY*

- Reached thousands of fitness and finance influencers through targeted outreach campaigns for Series A Startup
- 50x'd influencer identification efficiency by building automated pipeline with **Python**, **Klaviyo**, and **Influency** for emails
- Developed internal tool using **toutatis** and **Tailwind** that 2x'd weekly identification output for other interns
- Led and shadowed high-stakes client calls, including cold outreach and warm lead follow-ups
- Generated \$2K in GMV in 1 month by successfully onboarding 5 major clients onto the platform

## PROJECTS

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### tochi.one — Full-stack AI property management platform

Mar 2025 - Present

- Reduced tenant defaults by 25% through **PyTorch** logistic regression risk assessment system for data-driven screening
- Saved clients 10hr of manual processing time per month by automating maintenance ticket creation with **Twilio** and **Gemini**
- Built modern, responsive interface using **Next.js** and **shadcn/ui**, deployed on **Vercel** infrastructure
- Drove product adoption through continuous stakeholder engagement at local real estate networking events

### AdBlockIRL — AR ad-blocking proof-of-concept for Meta Quest

May 2025

- Trained **YOLOv8** model on **Roboflow** achieving 5ms latency detection of 100+ concurrent advertisements in video streams
- Implemented live video manipulation using **OpenCV** to apply mosaic censoring effect on detected advertisements
- Won \$2000 in prizes at Bain Capital Ventures AI Hackathon in NYC (FLORA track winner, Pond prize winner)

### SlopGen — Automated "fun facts" short-form video generator

June 2024 - Sep 2024

- Engineered content retrieval system using **yt-dlp** for programmatic downloads and **WhisperX** for accurate transcription
- Achieved 92% accuracy in content segmentation using **llama3** via **ollama** with RLHF, 15x faster than manual classification
- Developed voice endpoint with **edge-tts** and **Retrival Voice Changer** to for custom tts voices (your own or from recordings)

## EDUCATION

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### Rutgers University - New Brunswick

*Bachelor of Science - Computer Science • Cum Laude*

- Cybersecurity Club, Linux User Group (President), Road to Silicon Valley Program, TA 33:382:340, Photography Club

## AWARDS

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- BCV AI for Work and Life Hackathon: Best Viral Internet Product
- Rutgers IDEA Discovery Fund recipient for tochi.one
- HackRU Fall 24: Best Use of DataBricks