

Arnav Malhotra

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EDUCATION

Bachelor of Engineering in Computer Engineering

York University

Expected May 2027

Toronto, ON

EXPERIENCE

Lead Software Developer

OneTimeTable

Jan 2025 – Present

Remote

- Developed a full-stack student dashboard using FastAPI, MongoDB, and Next.js; drove adoption to 50+ users across 4 universities and achieved 35+ companion chrome extension installs
- Automated course data extraction via LLM pipelines with 95% accuracy on schedules/syllabi; added multiple export options to allow integration with other calendar platforms, saving students up to 3 hours per semester
- Enhanced performance and usability via Redis caching, reducing average load times by 60%

Project Developer

York University

Oct 2024 – Present

Toronto, ON

- Developed and deployed a full-stack calendar application that shows diversity events to the community using FastAPI, MongoDB, and React; achieved adoption by 200+ faculty and staff
- Automated content generation via Selenium scraping across 10+ sources and leveraged LLMs for description generation, cutting manual curation effort by 90%

Software Development Intern

Parcon India Private Limited

Jul 2024 – Sep 2024

Kolkata, India

- Created C/Python automation scripts integrated with Excel and ERP systems, transforming manual document workflows handling thousands of monthly invoices and delivery orders
- Automated document signing and uploading, leading to 90+ weekly staff-hours saved, elimination of administrative errors, improved data integrity, and faster processing.

Research Fellow

Indian Institute of Technology, Roorkee

May 2024 – Jul 2024

Roorkee, India

- Enhanced clarity into AI decision-making for medical applications via research into hybrid BCos-KAN architectures for MRI segmentation and transparent EEG seizure detection pipelines
- Engineered lightweight CNN-transformer models for mobile image enhancement, achieving DSLR-quality output while reducing model size by 50% compared to baseline architectures

PROJECTS

SuperchargedNotes | FastAPI • PostgreSQL • Next.js • TypeScript

- Developed a full-stack AI platform using Next.js, React, TypeScript, and Tailwind, leveraging OCR (Optical Character Recognition) to convert 5+ note formats (PDF, JPG, PNG etc.) into structured markdown with 90% layout accuracy and real-time previews
- Engineered various study tools including quizzes, flashcards, and summaries generated directly from notes, reducing student preparation time by up to 40% and accelerating learning cycles

INeedHelp@YorkU | React • FastAPI • PostgreSQL • JWT

- Developed a centralized platform for 80+ York University support services using PostgreSQL for resource tagging, secure authentication, and admin controls; attracted 1000+ visits and 50+ recurring users
- Increased service accessibility and awareness, reducing student search time for support resources by up to 25%

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, TypeScript

Frameworks: FastAPI, Next.js, React, Node.js

Databases: PostgreSQL, MongoDB, Redis

Libraries/Tools: PyTorch, NumPy, Pandas, Matplotlib, Selenium, Git, Docker, Tailwind CSS, JWT