

ARNAV MALHOTRA

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EDUCATION

Bachelor of Engineering in Software Engineering

York University

Expected May 2027

Toronto, ON

EXPERIENCE

Lead Software Developer

Jan 2025 – Present

OneTimeTable (link)

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, achieving **95% accuracy** on schedules and syllabi, and added multi-format export options that integrate with external calendar platforms, saving students up to **3 hours per semester**
- Enhanced performance and usability via Redis caching, reducing average **load times by 60%**

Software Developer

Oct 2024 – April 2025

York University (link)

Toronto, ON

- Developed and deployed a full-stack calendar application that surfaces diversity events 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 Developer Intern

Jul 2024 – Sep 2024

Parcon India Private Limited

Kolkata, India

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

Research Fellow

May 2024 – Jul 2024

Indian Institute of Technology, Roorkee

Roorkee, India

- Enhanced transparency in AI decision-making for medical applications via research into hybrid BCos-KAN architectures for MRI segmentation and explainable 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 (link) | FastAPI • PostgreSQL • Next.js • TypeScript

- Developed a full-stack AI platform leveraging OCR to convert **5+ note formats** (PDF, JPG, PNG, etc.) into structured Markdown with **90% layout accuracy** and real-time previews
- Engineered study tools—including quizzes, flashcards, and summaries generated directly from notes—reducing student preparation time by up to **40%**

INeedHelp@YorkU (link) | React • FastAPI • PostgreSQL • JWT

- Developed a centralized platform aggregating **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: Java, Python, C, JavaScript, TypeScript, HTML, CSS, SQL

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

Databases: PostgreSQL, MongoDB, Redis

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