Arnav Malhotra

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TECHNICAL SKILLS

Languages: Java, Python, 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

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 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   Oct 2024 – Present
York University (link)   *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   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 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   May 2024 – Jul 2024
Indian Institute of Technology, Roorkee   *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 *(link)* | *FastAPI • PostgreSQL • Next.js • TypeScript*
- Developed a full-stack AI platform, 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 *(link)* | *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%

EDUCATION

Bachelor of Engineering in Computer Engineering   Expected May 2027
York University   *Toronto, ON*