

Abdullah Malik

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SOFTWARE ENGINEER (FULL STACK)

Full-stack software engineer with 2 years of experience specializing in TypeScript, JavaScript, and Python. Strong background in combining software engineering with artificial intelligence to create innovative web applications.

TECHNICAL SKILLS

Languages: Java | Python | JavaScript | TypeScript | C | C++ | Golang | HTML | CSS | Bash

Frameworks/Libraries/Tools: Django | Express.js | Node.js | React | Jest | Mocha | Chai | Selenium | Postman | Git | Docker | Kubernetes | REST APIs | Linux | CI/CD | Cloud Computing | GCP | AWS (EC2, S3, Lambda)

Databases: MySQL | PostgreSQL | MongoDB | Microsoft SQL Server

WORK EXPERIENCE

Cresta

Palo Alto, CA / USA

Software Engineer

Aug 2021 – Jul 2023

- Developed AI-powered chatbots using TypeScript, React, and Golang for major clients including Porsche, Intuit Quickbooks, and Sleep Number, helping customers save approximately \$200,000 on human live agent costs
- Created React chatbots for the Sales and Product team, contributing to successful pitches to over 40 potential clients including Delta Air, Snapfinance, and Brinks Home Security, ultimately securing a \$750,000 deal with Snapfinance
- Implemented a voicebot module that reduced audio file sizes by 30% after processing, streamlining conversation analysis and enabling the product team to identify common consumer issues significantly faster
- Developed a microservice to handle and store chatbot logs for over 1000 chat messages daily

EDUCATION

The Pennsylvania State University

State College, PA / USA

Master of Science in Computer Science & Engineering | GPA: 3.93/4

Aug 2023 – May 2025

Relevant Coursework: Computer Networks | Distributed Systems | Operating Systems | Parallel Computing

Teaching Assistant: Data Structures & Algorithms (Fall 2023) | Introduction to Theory of Computation (Spring 2024) | Operating Systems (Summer 2024) | Communication Networks (Fall 2024 and Spring 2025)

National University of Computer and Emerging Sciences

Lahore / Pakistan

Bachelor of Science in Computer Science | GPA: 3.73/4

Aug 2017 – Jul 2021

PROJECTS

Spotifyfied | *TypeScript*

- Created Spotifyfied, an open-source Spotify Web API SDK for Browser and Node, earning 100+ GitHub stars
- Streamlined Spotify API usage with 100+ endpoints, 4 authorization flows, and robust error handling
- Delivered 98% test coverage for high reliability across ESM and CommonJS builds

[Github](#)

SpeedSense | *watchOS | python*

- Developed a watchOS app to estimate ball throw speed and spin using inertial sensor data
- Implemented a speed estimation algorithm with a median error of 1.4 m/s
- Designed a pipeline with server-side processing using Flask and SciPy and real-time visualization with Chart.js

[Github](#)

Peer-to-Peer File Sharing | *python*

- Built a multithreaded P2P file-sharing system with parallel downloads and real-time progress tracking using Python
- Ensured file integrity with hash-based verification and included features for file registration and list retrieval

Malloc | *C Programming*

- Developed a custom dynamic storage allocator for C programs, implementing `malloc`, `free`, and `realloc` functions
- Designed and optimized heap consistency checker to ensure robustness and debug allocation issues effectively
- Achieved efficient memory management with 16-byte alignment and minimized fragmentation through advanced policies