

# 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

**Frameworks/Libraries/Tools:** Django | Express.js | Node.js | React | lit-element | Jest | Mocha | Chai | Selenium | Postman | Git | Docker | Kubernetes

**Databases:** MySQL | PostgreSQL | MongoDB | Microsoft SQL Server

## EDUCATION

### The Pennsylvania State University

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

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

State College, PA / USA

Aug 2023 – May 2025

### National University of Computer and Emerging Sciences

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

Lahore / Pakistan

Aug 2017 – Jul 2021

## WORK EXPERIENCE

### The Pennsylvania State University

*Graduate Assistant*

State College, PA / USA

Aug 2023 – Present

- Serve as a graduate assistant for 4 courses: Data Structures & Algorithms (Fall 2023) | Introduction to Theory of Computation (Spring 2024) | Operating Systems (Summer 2024) | Communication Networks (Fall 2024 and Spring 2025)
- Grade 100+ assignments weekly and support students through 10 hours of office hours

### Cresta

*Software Engineer*

Palo Alto, CA / USA

Aug 2021 – Jul 2023

- Developed AI-powered chatbots using TypeScript, 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

## 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

### 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

### Structuring Scholarly Contributions in Open Research Knowledge Graph | *Python*

- Contributed to a research project aimed at reducing researchers' time on literature reviews
- Built an NLP pipeline that processed and summarized 300+ research papers into structured information graphs
- Solved text classification and phrase extraction problems using Python, Flask, Keras, TensorFlow, PyTorch, NLTK, Pandas, GloVe Embedding, spaCy, and pre-trained models