**Neh Patel**

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# EXPERIENCE



# Garmin May 2022 – Present

Software Engineering Intern Olathe, KS / Remote

* Revitalized backend services to employ modern Java Reactor Core to allow for asynchronous service calls, which yielded over 40% faster response times.
* Incorporated new features using Scala and TypeScript which improved the accuracy of avionic map data of 5 important regions worldwide.
* Utilized Spring Boot framework, RabbitMQ, Kubernetes, and Maven to deploy new services to support reactive endpoints, which would handle over 3,000 calls per hour.

# University of Tennessee Nov 2021 – May 2022

Undergraduate Research Assistant Knoxville, TN

* Employed internal UTK APIs with Intel oneApi to visualize 4 geographic mapping regions for the National Park Service.
* Integrated visualizations in a web framework which adopted Python to host 3 different sites which leveraged geographical data to provide functional visual graphs.
* Repurposed more than 10 GB of raw binary data to operational NetCDF format, which will be deployed to help students understand environmental changes with respect to time.

**Skills**

Java, C++, C, Python, TypeScript, JavaScript, Reactor Core, HTML, CSS, Scala, SQL, Git, OOP, React, Spring Boot, Jenkins, Liquibase, PostgreSQL, Junit, Jtest, Microservices, Backend, Frontend, Full-Stack,Agile, Sprint Planning, RabbitMQ

**PROJECTS**



**Search Engine**

* Developed a crawler that would automatically assess the relevance of documents based on user-supplied queries, by utilizing web crawling and TF-IDF vectorization.
* Cleaned and quantified over 10,000 words in over 20 data driven sources.
* Tuned parameters to optimize the relevancy of the queries results to get a response time under 10 milliseconds.

**Anonymous Contact Tracing Device**

* Lead a team consisting of 4 other people to create a prototype of an Anonymous Contact Tracing Device using microcontrollers and low-energy Bluetooth module.
* Designed a user interface that communicated with Google Cloud hosted endpoints and database for 5 months which could be utilized by health care centers to get disease spread data.
* Communicated with sponsors and over 10 potential users to improve design and functionality of product.

# Presented the finalized prototype at the University of Tennessee showcase to over 100 people.

# EDUCATION



# University of Tennessee Aug 2023 – Present

Master of Science in Computer Science Knoxville, TN

# University of Tennessee Aug 2019 – May 2023

Bachelor of Science in Computer Science Knoxville, TN

* GPA: 4.0/4.0, Summa Cum Laude
* Awards:
  + The University of Tennessee Volunteer of Distinction Award

*(Awarded to the top academic achievers of each college)*

* + The University of Tennessee at Knoxville Gonzalez Family Award

*(Awarded for outstanding achievement in computer science)*