# BURAK YESIL

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#### **EDUCATION**

## **Stevens Institute of Technology**

Bachelor of Science in Computer Science

**Relevant Courses:** Operating Systems, Concurrent Programming, Database Management Systems, Deep Learning, Fundamentals of Machine Learning, Algorithms, Data Structures, Computer Architecture, Systems Programming, Discrete Structures, Theory of Computation, Agile Methods, Principles of Programming Languages, Linear Algebra, Security, Privacy, and Society, AP Computer Science A, AP Computer Science Principles

## **SKILLS**

Languages: Python, Java, C, C++, JavaScript, React JS, OCaml, SQL, Erlang, Groovy, HTML/CSS Technologies/Tools: Linux, Git, Docker, Docker Swarm, FastAPI, PostgresSQL, Redis, RabbitMQ, NumPy, Pandas, PyTorch, TensorFlow, Hyperledger Fabric, AWS, Postman, MongoDB, MeteorJS, Flask

## **EXPERIENCE**

#### **Signet Research** | *Software Engineering Intern*

May 2023 - Present

December 2023

GPA: 3.81/4.0

- Led the development and enhancement of Signet Research's surveying platform using **Meteor.js**, ensuring a seamless and user-friendly experience.
- Utilized **Redis**, **Python**, and **RabbitMQ** to bolster data handling capabilities, optimize message queueing, and enhance overall system responsiveness.
- Collaborated closely with the COO of Signet to pioneer new features, extending the platform's functionalities beyond traditional surveying to cater to diverse data collection needs.

## Citizens Bank | Private Blockchain Engineering Intern

June 2022 - October 2022

- Designed and implemented a multi-organizational **private blockchain network** using **Hyperledger** on **Red Hat Linux**, leveraging **gRPC** for communication between distinct **EC2 instances** joining separate channels and invoking multiple contracts.
- Developed and deployed custom **smart contracts** in **JavaScript** to private network channels.

#### Stevens Institute of Artificial Intelligence | Selected AIRS Program Research Fellow

June 2021 - May 2023

- Built a podcast platform leveraging the **Transformers NLP Architecture** to augment user experience from inception.
- Trained and deployed three NLP models in **Python** and **TensorFlow** for platform's backend, utilizing **transfer learning** and Google Cloud Platform.
- Engineered a Flask Web App enabling users to interactively test the platform.
- Showcased research findings to the Stevens CS faculty.

### **PROJECTS**

Podsee | Founder

June 2021 – May 2023

- Architected and developed an API using FastAPI and Python, transforming audio inputs into dynamic video outputs.
- Implemented **multithreading** techniques to speed up processing times by parallelizing tasks and minimizing redundant computations.
- Leveraged C++ for performance-critical components.
- Employed Natural Language Processing and the BERT model to identify audio cues and generate visual pop-ups within videos
- Earned esteemed recognitions such as the AIRS Fellowship Award, Thomas H. Scholl Award, and Mission 50 Startup Prize to fund and highlight the project's promise.

## **Deehr Market** | Co-Founder

July 2023

- Developed a **healthcare Dapp** empowering users with full ownership of their **private healthcare data**, and facilitating frictionless access for providers, thereby mitigating **gatekeeping** issues.
- Integrated the **Concrete ML library** for **homomorphic encryption**, enabling AI models to train and infer directly on encrypted data, setting a new precedent for **data privacy**.
- Presented the project at the **EthGlobal Paris Convention**, securing accolades and prizes for its avant-garde fusion of blockchain, privacy standards, and AI capabilities.