

# Eralp Sahin

MS Computer Sci & Eng  
Penn State University  
May 2020

BS Computer Sci & Eng  
Sabanci University  
June 2017

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## WORK EXPERIENCE

### Research Assistant

Penn State University

08/2019 - Present

State College, PA

- Assisting the sensor-enabled cloud-based Brain Modeling simulation development that approximates Athlete's brain's response to injuries.
- Building the Digital Brain Tech web using React, AWS Cognito and AWS S3.
- Redesigning the concussion impact modeling for AWS Lambda to minimize server costs and scale dynamically.

### Research Assistant

Penn State University

05/2019 - 07/2019

State College, PA

- Led a team of 4 undergraduates developing an iOS app of [VideoVitals](#) project using Objective-C, Swift, and C/C++.
- The app calculates the heart rate of the user using facial landmark detection with ML using Dlib and OpenCV on frames captured by front camera.
- Engineered the overall architecture, managed teams tasks, conducted code reviews, and reported the progress to the research advisor.

### Full Stack Engineer

Sabanci University

02/2018 - 07/2018

Istanbul, Turkey

- Designed and developed an adaptive learning tool in Python that is integrated to edX platform via XBlock architecture.
- Extended edX course structure with tags for the adaptive tool and designed user interface for course staffs to tag course materials.
- Implemented the adaptive tool which helps students get materials specifically tailored to them by learning their learning styles using machine learning.

### Front-End Engineer

Proente

07/2017 - 10/2017

Istanbul, Turkey

- Worked with a team in AngularJS fixing bugs and designing components and pages, such as custom selectables and employee statistics page.
- Redesigned data table creation process to minimize the work needed to create new statistics pages from hours to minutes with reusable custom directives.

### Software Developer Intern

Ozgur Yazilim A.S.

06/2016 - 08/2016

Istanbul, Turkey

- Developed PHP scripts, built tools with cron and designed interfaces for WordPress and Drupal CMSs.

## TECHNICAL SKILLS

### Languages & Databases

JavaScript, Python, C++, Java, Objective-C, HTML, Sass, CSS SQL, MySQL, MongoDB, Redis

### Frameworks & Libraries

React, React Native, Electron, Express, Jest, Flask, OpenCV, Hugo, Flex, Bison, JavaFX

### Tools

Git, Postman, npm, Travis CI, Coveralls, RedMine, Jenkins, ESLint, AWS, Make, LaTeX, Xcode

## PERSONAL PROJECTS

### [MySU API](#)

- Reverse engineered Sabanci University's SOAP API and wrote a wrapper REST API as an npm package using Travis CI, Jest, and Coveralls in the process.
- Informed Sabanci University about the security vulnerability of their API, and they are currently working on a redesign to fix the vulnerability I have found.

### [Dollar Record High App](#)

- Android application that tracks USD/TRY currency exchange rate and notifies user when it hits new record high.
- The Android application is developed in Java and push notifications come from a Flask server that keeps track of the currency exchange rate and serves a REST API for the app.

### [LeetCode Stats](#)

- A cross platform desktop app developed using Electron and React that scrapes LeetCode profile HTML to parse your LeetCode data.
- It is a minimalist always-on-top app for keeping track of your progress on LeetCode.

### [Unravel](#)

- Created for revealing anonymous users on Piazza Q&A using Python.
- It keeps track of user statistics of a course and analyzes the changes in JSON data between statistics snapshots to deduce the identity of an anonymous user.

### [Mint Mobile Telegram Bot](#)

- Designed a telegram bot using Node.js and Express for the server and Redis for the database.
- This bot gets your Mint Mobile LTE stats faster than the official Mint Mobile App using its private REST API.