

# David Cheng

david.cheng@duke.edu  
davidcheng.io

github.com/shavavo  
linkedin.com/in/davidcheng-io

## EDUCATION

### DUKE UNIVERSITY | PRATT SCHOOL OF ENGINEERING

EXPECTED MAY 2021 | GPA: 3.750 | PRATT ENGINEERING DEAN'S LIST

- Electrical and Computer Engineering (BSE) and Computer Science (BS) Majors
- Relevant Coursework: **CS201** Data Structures and Algorithms | **CS308** Software Design and Implementation  
**ECE110** Fundamentals of Electrical and Computer Engineering | **ECE280** Signals and Systems  
**ECE355** Smart Home Technology | **ARTSVIS198** Experimental Interface Design

## EXPERIENCE

### DATA ANALYST INTERN | DATA+: ANALYTICAL EXPLORATION FOR DUKE DEVELOPMENT

DATA SCIENCE | 10 WEEK RESEARCH PROGRAM | DUKE INFORMATION INITIATIVE | JUN-AUG 18

- Analyzed large data set of over 70,000 text records, created a machine learning model to identify high prospective donators, and triaged donators by interests with topic modeling and named entity recognition.
- Created a tool for Duke Development to model and predict future data leading to an increase in efficiency and effectiveness of fundraising. Employed Python libraries such as pandas, NLTK, Scikit, Tensorflow.

### RESEARCH ASSISTANT | FUQUA BUSINESS SCHOOL

WEB SCRAPING | SQL | UNDER DR JONATHAN CUMMINGS | JUL18-CURRENT | [HTTPS://BIT.LY/2QIGX6M](https://bit.ly/2QIGX6M)

- Created crawler to extract public data on Google Scholar and other sources using rotating proxies, user agents, cookies, BeautifulSoup in Python
- Created mySQL server and REST API to create custom queries for researchers to use.

### WEB DEVELOPER | CANVAS DATA VISUALIZATION DASHBOARD

DASH | MYSQL | FULL STACK | UNDER DR JONATHAN CUMMINGS | AUG18-CURRENT | [HTTPS://BIT.LY/2OA9D6I](https://bit.ly/2OA9D6I)

- Pulls student responses to assignments from Canvas API, populates mySQL server, and visualizes data in web application. Live backend with automatic and manual update options.
- Deployed online and used by professor and around 300 students to analyze results, enhancing education experience. Use of Dash (Python framework), plot.ly (React), mySQL.

## PROJECTS

### FORESITE (IOS APP) | NATURAL DISASTER CROWD SOURCING APP

SWIFT | REACT | FIREBASE | DATA DRIVEN SOLUTION | [HTTPS://BIT.LY/2XIT4U6](https://bit.ly/2XIT4U6)

- Rapid reporting and alert system driven by user reports of natural disasters. Sends notifications in certain radius of user reports, and maps reports in visualizations (in app and on web), for victims and aid to coordinate efforts.
- Focused around live collection of data and rapid response with use of Firebase's live servers (geofire). Built with Swift, React, Google Cloud.

### INTEGRATED LANGUAGE (CHROME EXT) | LANGUAGE LEARNING TOOL

CHROME EXTENSION | JAVASCRIPT | HACKDUKE 2017 | [HTTP://BIT.LY/2Z6SSPY](http://bit.ly/2Z6SSPY)

- Google Chrome extension that injects HTML to create interactive language learning modules.
- Built with Javascript, Natural Language Processing libraries, Google Translate API, Quizlet API.

### STREAMLINES (WEBSITE) | TEXT EDITOR FOR CREATIVITY

REACT FRAMEWORK | PERSONAL PROJECT | [HTTPS://BIT.LY/2KZMJUM](https://bit.ly/2KZMJUM)

- Text editor with elegant design aimed at changing writing behaviors. Built with React, SASS, Firebase API, Javascript.

## SKILLS

Python  
Java  
Android Development  
Swift (iOS Development)  
Javascript  
React  
HTML  
CSS/SASS  
Git  
REST API  
SQL Server  
Text Mining  
C++  
LATEX  
MATLAB  
Illustrator  
Premiere  
Fluent in Mandarin