

# Numaer Zaker

full stack web dev.  
mobile app dev.  
systems and infrastructure.

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## education

### **Stony Brook University**

B.S. Computer Science  
(Aug. 2014 - May 2018)  
GPA : 3.32

### **Coursework**

Compiler Design  
Operating Systems  
Cloud Computing  
System Fundamentals II  
Analysis of Algorithms  
Artificial Intelligence  
Programming Languages  
Data Structures  
Design Patterns  
Game Programming  
System Fundamentals  
Theory of Computation

### **High School for Math, Science, & Engineering**

Specialized HS Degree  
in Math Track  
(Sept. 2010 - July 2014)  
GPA : 92.63/100

## skills

### **Languages**

JavaScript • Python • Java •  
Swift • C++ • C • SML • Prolog

### **Tools**

Git • Vim • Shell • Angular.JS •  
Bootstrap • Selenium • LibgDX •  
Box2D, • Twitter API • Xcode •  
Android Studio • Eclipse •  
Netbeans • Scikit • PLY •  
Imgur API • Cleverbot API

## extracurricular

### **Hackathons**

Bitcamp • Redhook • HackNYU •  
CityCamp • Unhackathon •  
HackCooper • MHacks • HackMIT •  
PennApps • BostonHacks •  
YHacks • HackRPI • AngelHacks •  
AT&T Hackathon

## experience

### **TLT Media Lab** Part-Time Application Developer

Sep 2016 – May 2017 | Stony Brook, NY

- Developed a microscope simulator in JavaScript for biology students.
- Regularly communicated with clients to design and develop applications.

## projects

### **Seraph**

Twitter intelligence and automation marketing tools to increase follower growth.

- Machine learning to classify users as potential followers or unfollowers.
- Used MongoDB, Express, Node.JS, Python, Selenium, and Twitter API.

### **Decaf Compiler**

Compiler for the Decaf language into assembly language.

- Built lexer, parser, semantic analyzer, AST builder, and code generator.
- Written with Python using PLY (Python Lex-Yacc) framework.

### **Xv6 Operating System**

Modifications to the xv6 operating system to boost performance.

- Modified process round robin scheduling to lottery scheduling.
- Replaced traditional fork() to only make copy on write (COW Fork).
- Improved disk writes by implementing Fast File System (FFS).

### **Borrow**

Scalable cloud computing web application that allows local community to share and borrow items.

- Made scalable by creating load balancer and sharding the database.
- Written using Node.JS, Express, and MongoDB.

### **Fantasy Baseball Draft Kit**

Application to draft players into fantasy baseball teams.

- Programmed in Java using JavaFX to create a GUI software application.
- Used design strategies such as MVC, foolproof design, and modularity.

### **Natural Language Model Generator**

Application that creates language models from input text.

- Model provided likelihood of word occurring given previous words.
- Use of MLE, Laplace smoothing, and Katz backoff to generate various bigram models.