

Himanshu Kattelu

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Education

Stony Brook University

Computer Science (B.S)
Applied Mathematics and
Statistics (B.S)
GPA: 3.8/4.0

Stony Brook, NY Expected 2018

Software

Eclipse, Git, Sublime, Linux
(Ubuntu), Bootstrap, JQuery,
Jekyll, 3DSMAX, MS Office

Languages

Java, C, HTML/CSS, MIPS,
MATLAB, LaTeX, Javascript

Relevant

Coursework

Current

Analysis of Algorithms, Intro to
Security Fundamentals, Time-
Series Analysis, Intro to
Visualization

Past

Computer Science A, B Honors,
Systems Fundamentals I, II,
Theory of Computation Honors,
Linear Algebra, Finite
Mathematical Structures, Data
Analysis, Probability Theory,
Operations Research

Organizations

Theta Tau, Stony Brook Hula-
Hoop Enthusiast's Club
(Treasurer), PUSO Ballroom,
PUSO Cultural, Stony Brook
Computing Society

Honors

CEAS Dean's List
Presidential Scholarship
Comp. Sci. Honors Program

Links

Website: [Hkattelu.github.io](https://hkattelu.github.io)
Linkedin: [/in/himanshukattelu](https://in/himanshukattelu)
Github: Hkattelu

Project Experience

File Compressor

May 2016 - June 2016

- Implemented a command-line file compressor in C to compress files by over 50% and decompress them without information loss
- Examined various compression algorithms for methods and investigated them to determine which method is optimal under certain scenarios
- Designed a bit-based file I/O system in C to further optimize compression by writing in bit units instead of byte units

Chat Client | Stony Brook University

Apr 2016 - May 2016

- Collaborated with a partner using git to build a server-client based chat program entirely in C to connect at most ~4000 simultaneous users to chat
- Utilized sockets to send/receive messages between systems and followed a password login protocol to ensure secure communications
- Programmed a multi-threaded login process to allow multiple users to log in at once without tampering shared resources

CryptCoin | Stony Brook University

Oct 2015 - Dec 2015

- Developed a cryptocurrency miner and transaction system in Java following the specifications of the Bitcoin currency
- Analyzed the Bitcoin white papers and modeled the system using various UML diagrams to depict the Bitcoin mining protocol
- Prepared a webpage to document the classes and use cases involved as well as to display and explain details of the project to classmates

Personal Website

June 2015

- Constructed a website from scratch using HTML, CSS, and Javascript to put projects, files, and information on.
- Produced a static-site blog using Jekyll and hosted it on a github.io domain to write blog posts and updates
- Maintained and updated the site using git to routinely push new blog updates, design changes, and bug fixes to protect the website quality

Work Experience

Student-Athlete Tutor | Stony Brook University

Sept 2015 - Dec 2015

- Tutored student athletes in various math subjects ranging from Algebra to Calculus to prepare them for homework assignments and in-class exams
- Wrote 20 reports each week (One per student) to track individual academic progress and to identify which students were struggling
- Communicated with other tutors and coaches to develop better ways to teach students and improve their academic performance

Research Assistant | Stony Brook University

May 2015 - Sept 2015

- Gained extensive experience using MATLAB for image and video processing to make an engine to search inside a video
- Produced a function library to locate a GIF inside a video accounting for differing framerates, brightness, and video resolution
- Tested and improved the functions to maximize speed by using HOG/SIFT image comparisons, dynamic time warping, and frame mapping