

# Benjamin Michalowicz

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## EDUCATION

### STONY BROOK UNIVERSITY

#### B.S, COMPUTER SCIENCE

May 2020 | Stony Brook, NY

Clubs/Orgs:

Marching Band

Stony Brook Computing Society

TKD at SBU

Stony Brook Live

#### M.S, COMPUTER SCIENCE

(Exp.) May 2021 | Stony Brook, NY

## COURSEWORK

### UNDERGRADUATE

Computer Science I, II, III

Systems Fundamentals I, II

Calculus I, II, III

Operating Systems

Technical Communications

Analysis of Algorithms

Principles of Programming Languages

Principles of Database Systems

Advanced Sys. Prog. in UNIX/C

Software Engineering

### GRADUATE

Data Science Fundamentals

Principles of Programming Languages

System Security

Quantum Computing/Applications

Computer Networks

## SKILLS

### PROGRAMMING

Java • C • Python • Shell Scripting

• Qiskit • Fortran • C++

• SQL • HTML

• CSS • Javascript •  $\LaTeX$

• MIPS Assembly

### OPERATING SYSTEMS

Windows • \*nix • OSX

### TECHNOLOGIES

MySQL • Node.js • NumPy •

SciKit-Learn • Seaborn/data

visualization • Git • SQL Server •

Intel Pin • LLVM, Cray, GNU Compilers

### PERCUSSION

• 2007-Present

• Marching, Orchestral, Drum Set

• Leadership in Marching Band  
(2015-Present)

• Various Music Awards  
(2012-Present)

## WORK EXPERIENCE

### STONY BROOK UNIVERSITY | RESEARCH ASSISTANT

August 2020-Present | Stony Brook, New York

- High-Performance Computing research in Dr. Barbara Chapman's Exascale lab, focusing on testing and benchmarking new HPC clusters and architecture. Ran acceptance tests and helped debug the configuration of the new Ookami cluster

### STONY BROOK UNIVERSITY | TEACHING ASSISTANT

Aug 2020 - Dec 2020 | Stony Brook, New York

- Held weekly office hours, led weekly recitations, and helped students understand material in Stony Brook University's CSE 216 course (Programming Abstractions). Designed recitation questions and collaborated with the course lecturer.

### SBUHACKS PLANNING COMMITTEE | SOCIAL MEDIA MANAGER

March 2020-Dec 2020 | Stony Brook, New York

- Keeping social media accounts up to date (Instagram, Twitter, Facebook, etc.) and otherwise helping organize the SBUHacks hackathon for the 2020 MLH season

### STONY BROOK UNIVERSITY | UNDERGRADUATE RESEARCH ASSISTANT

May 2018 - May 2019, Dec 2019-Feb 2020 | Stony Brook, New York

- Worked with PhD students in the COMPAS lab on projects focusing on microarchitecture and cloud infrastructure.

### BAE SYSTEMS | SOFTWARE TECHNICAL INTERN

May 2019 - Aug 2019 | Totowa, New Jersey

- Aided in design and implementation of software projects using Agile techniques specializing in defense systems; utilizing both Windows and Linux environments.

## PROJECTS

### TOPOLOGIC | LIBRARY TO SIMULATE DFAS | CO-DEVELOPER

June-August 2020

- Simulates DFAs and Probabilistic DFA's using context switching. Programs can start at multiple vertices, which may be run in parallel.

### MODIFICATIONS TO XV6 | COURSE/PERSONAL PROJECT

September-December 2019 | Stony Brook, NY

- Modified the xv6 OS to understand OS concepts and for personal curiosity; mouse driver, CPU scheduling, file systems, and signaling/process management

### GERRYMENDER | CAPSTONE PROJECT, DB DESIGN, DATA MANAGEMENT

September-December 2019 | Stony Brook, NY

- Capstone Project for CS major aimed to fix political Gerrymandering; designed databases using MySQL; data pre-processing and maintenance through Python

### E-COMMERCE PRO | COURSE PROJECT/DEVELOPER

March-May 2019 | Stony Brook, New York

- Used web-design technologies and frameworks (HTML, CSS, Node.JS) and SQL/MySQL to create a web application for e-commerce.

## HONORS/AWARDS

### INTERNATIONAL SYMPOSIUM ON COMPUTER ARCHITECTURE

Phoenix, AZ, 2019

- ISCA uArch Workshop attendee on awarded scholarship