# Benjamin Michalowicz

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## **FDUCATION**

#### 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

# SKILLS

#### **PROGRAMMING**

Java • C • Python • Shell Scripting

- •Qiskit Fortran C++
- SQL HTML
- CSS Javascript ETEX
- MIPS Assembly

#### **OPERATING SYSTEMS**

Windows • \*-nix • OS X

#### **TECHNOLOGIES**

MySQL • Node.js • NumPy • SciKit-Learn • Seaborn/data visualization • Git • SQL Server • Intel Pin

#### **PERCUSSION**

- 2007-Present
- Marching, Orchestral, Drum Set
- Leadership in Marching Band (2015-Present)
- Various Music Awards (2012-Present)

## WORK FXPFRIFNCE

#### STONY BROOK UNIVERSITY | RESEARCH ASSISTANT

August 2020-Present | Stony Brook, New York

 High-Performance Computing research in Dr. Barbara Chapman's Exascallab, focusing on testing and benchmarking new HPC clusters and architecture

#### STONY BROOK UNIVERSITY | TEACHING ASSISTANT

Aug 2020 - Present | 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-Present | 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 | Stony Brook, New York

• 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 My/SQL; 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