

# BENJAMIN HUNG

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## EDUCATION

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**University of Illinois at Urbana-Champaign**

*Expected Graduation: May 2022*

Bachelors of Science in Computer Engineering

GPA: 3.78/4.00

Relevant Courses: Data Structures (CS 225), Applied Parallel Programming (ECE 408)

Current Courses: Computer Systems Engineering (ECE 391), Distributed Systems (ECE 428)

## PROJECTS

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### Optimizing Convolutional Neural Network

Fall 2019

- Optimized the forward pass kernel of a convolutional neural network
- Utilized parallel programming algorithms such as matrix unrolling and tiled shared memory matrix multiplication in CUDA C and OpenACC
- Reduced final kernel operation speed by approximately 55%
- Ranked 10th among over 60 competing teams

### Invest.io

Spring 2019

- Tracked market trends to analyze the risk of investing in different S&P 500 stocks
- Scraped recent news articles for user-inputted stocks to determine general market sentiment
- Formatted analytical information into easy-to-understand visual aids
- Utilized Python APIs: ParallelDots, Beautiful Soup, and Pandas

### Vision

Spring 2019

- Developed a wearable device to facilitate the movement of the visually impaired
- Embedded TensorFlow Python API into a Raspberry Pi to recognize objects
- Utilized camera module and Alexa speaker to give corresponding advice about user's environment
- Competed in the COZAD New Venture program, an entrepreneur competition
- Co-winner of the Amazon Alexa prize for best Alexa-enhanced products

## TECHNICAL SKILLS

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**Languages**

C++, C, Java, Python

**Technologies**

CUDA, Git, Linux, Quartus, OpenACC

## ACHIEVEMENTS & AWARDS

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- James Scholar Fall 2018 - Present
- Engineering Visionary Scholarship Fall 2019 - Spring 2020
- Dean's List Fall 2019
- COZAD New Venture Challenge's Amazon Alexa Prize Spring 2019