Brandon R. Canfield

http://brandoncanfield.coffee/
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Education

Yale University New Haven, CT Expected May 2021
Bachelors of Arts in Computing and the Arts; GPA: 3.81
Relevant Coursework: Intensive Algorithms, Human-Computer Interaction, Systems Programming, Parallel Programming, Sound Synthesis, Data Structures, Linear Algebra and Vector Calculus

Work Experience

Yale Computer Science Dept. New Haven, CT Sep 2018 – Dec 2018
Undergraduate Learning Assistant: Parallel Programming Techniques
- Served as teaching assistant for 22-student undergraduate/graduate parallel programming course
- Hosted weekly (or more frequent) office hours to answer student questions about conceptual parallel programming, OpenMP, MPI, and CUDA

Pearl Research, Inc. New Haven, CT Feb 2018 – Feb 2019
Full-Stack Software Engineer; Co-Founder
- Communicated with design/business team to move biometrics solution from concept to prototype
- Collaboratively built PCI-compliant AWS-based biometric authentication platform with Python, Flask, and MySQL, extending previously local biometrics solutions to the cloud
- Built three domain-specific Android-based prototype front-ends applying the biometrics platform to retail, research, and building security

Boston Roundtable Boston, MA and Northeast USA Jul 2018
Camp Counselor: Road to Harvard Program 2018
- Introduced 13 Shanghainese students to Ivy League education system
- Taught week-long course on history of the American Revolution through language barrier

Awards / Extracurriculars

Best Poster: Human-Computer Interaction New Haven, CT May 2019
- Designed phone application to reduce food waste amongst single adults with shared meals

YHack 2018 New Haven, CT December 2018
- Built prototype iOS app to prevent DUIs by tracking rate of eye dilation (correlated with BAC)
- Placed top 5 out of 120 submissions with additional honorable mention for grand prize

Yale Open Music Initiative New Haven, CT Jan 2018 – Present
- Created various experimental music controllers and performed improvisatory electronic music
- Coordinated and taught workshops using microcontrollers to quickly create MIDI controllers
- Performed research on programming by example for digital signal processing

Palatine Robotics Palatine, IL Aug 2016 – May 2017
- Led 3-person weapon team to design and manufacture single-tooth drum weapon for combat robot

Skills

Programming Languages Java, C, Python, JavaScript, HTML, CSS, Mathematica, CUDA, Swift
Technologies Mobile Application Development, Flask, Linux/UNIX/macOS, Full-Stack Development, OpenMP, MPI, General-Purpose GPU, Arduino, Amazon Web Services, REST APIs
Software Adobe Creative Suite (esp. Illustrator/InDesign), Logic Pro, SolidWorks, Autodesk Inventor, Git