Cade Brown

cade@cade.site · +1 865 368 8485 · cade.site
Knoxville, USA

EXPERIENCE

- **Innovative Computing Laboratory**
  Research Assistant - Knoxville, USA
  Ported the MAGMA project to HIP, and improved dense linear algebra (DLA) algorithms for use on AMD GPU hardware.
  2019-Present

- **ORNL::OLCF**
  Research Intern - Oak Ridge, USA
  Took charge of the SimpleSummit (aka Leconte) project under the OLCF, which is the successor to 'Tiny Titan'. I specifically handled the visualization software and part of the physical design.
  2016-2017

- **Agilaire**
  Project Contractor - Knoxville, USA
  Worked on a low-cost and small form-factor data logger solution for air quality monitoring, meant to run on a Raspberry PI. The project was called 'pilog'
  2015

EDUCATION

- **B.S. Computer Science (CGPA: 3.55/4)**
  University of Tennessee Knoxville
  In-Progress, Expected 2023

AWARDS & RECOGNITION

- **Intel ISEF 2018 Finalist**
  Intel ISEF
  Qualified after winning Grand Reserve Champion at SASEF
  2018

- **Intel Excellence in Computer Science Award**
  SASEF
  Awarded for my submission in SASEF
  2018

SKILLS

- **Technologies**
  C, C++, Python, JavaScript, kscript, WASM, OpenMP, CUDA, HIP, Google Cloud Platform (GCP), git/GitHub, Jekyll/Liquid, Django, Flask, NumPy, Tensorflow

- **Patterns & Practices**
  Object Oriented Programming, Functional Programming, Continuous Integration

- **Project Management**
  Scrum

PROJECTS

- **MPFR** `[mpfr.org]`
  A FOSS library for arbitrary precision math
  C

- **MAGMA** `[icl.cs.utk.edu/magma]`
  A FOSS library aimed at HPC dense linear algebra on many-core, GPU, and multi-GPU platforms
  C, C++

- **Spanner** `[google.com/spanner]`
  A scalable, multi-version, globally distributed, and synchronously replicated database
  C++, Java, Bash