Bryan Hitchcock

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Education

Michigan State University   Aug 2016 - May 2020

Computer Science, B.S., GPA: 3.78/4.00, Major GPA: 3.92/4.00

<u>Honors:</u> *Engineering College Dean's List*

Experience

BS&A Software: Software Engineer, Intern   May 2019 - Aug 2019

- Designed and created an internal TypeScript Angular web app used by all ~180 employees to facilitate collaboration, saving ~$4,000/month in Trello costs.
- Designed back end RESTful API and web socket infrastructure written in C# ASP.NET Core.

Teaching Assistant: CSE 450 - Compilers and Interpreters   Aug 2019 - Dec 2019

- Assisted students with designing and implementing their compilers that staged through lexical, syntactic, and semantic analysis, intermediate language generation, optimization, and target code generation.

Projects

Course Sniper   Apr 2019 - May 2019

- C# WPF desktop application and IoT console application that automatically enrolls in planned courses whenever there's an available spot.
- Deployed IoT application targeting Michigan State University's scheduling system on a Raspberry Pi.

LOLCode Compiler   Aug 2018 - Dec 2018

- Compiler written in Python for a language called LOLCode.
- Stages through lexical, syntactic, and semantic analysis, intermediate language generation, optimization, and target code generation.

SQLite Database   Jan 2019 - May 2019

- Python project that lexes, parses, and interprets SQL for a SQLite-like database.
- Implementation includes joins, transactions, multiple connections, lock management, custom aggregate functions, collations, views, etc.

LCUSharp   Dec 2018 - Jan 2019

- API wrapper written in C# for the League of Legends client that interfaces with it directly via http requests and web sockets.

Skills

- **Languages**: Python, C#, C/C++, JavaScript/TypeScript, Java, SQL, *Rust*, *CUDA*
- **Libraries & Frameworks**: OpenMP, MPI, Angular, VueJS, Flask, ASP.NET Core, Entity Framework Core
- **Tools & Technologies**: Git, Docker, Unit/Functional/Integration Testing, Amazon Web Services, Microsoft Azure, Visual Studio 2019, Visual Studio Code

Course Electives

- **CSE 402**: Biometrics and Pattern Recognition
- **CSE 410**: Operating Systems
- **CSE 415**: Parallel Computing (HPC)
- **CSE 422**: Computer Networks
- **CSE 431**: Algorithm Engineering
- **CSE 450**: Compilers and Interpreters
- **CSE 480**: Databases
- **CSE 491**: Advanced C++ **(6 students invited)**