Bryce Schumacher

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EDUCATION

University of Colorado Boulder **August 2020 - May 2024**

- **Major:** B.S. Computer Science
- **GPA:** 3.9/4.0
- **Relevant Coursework:** Data Structures and Algorithms, Starting Computing C++, Linear Algebra, Computer Systems, Data Science/Statistics, Software Development, Calculus I-III

EXPERIENCE

Undergraduate Research Assistant **January 2021 – Present**

University of Colorado, TMI Lab under Dr. Stephen Voida

- **Co-authored research papers** entitled "Visualizing Uncertainty in Multi-Source Mental Health Data" and "Personal Dream Informatics: Self-Information Systems for Dreaming"
- Assisted in the completion of bipolar disorder tracking full-stack web application using novel co-tracking feature
- Improved backend, eliminated monthly server cost and established easy scalability by converting from Java to AWS
- Created a more user-friendly and scalable front-end by organizing code, completely re-designing the UI, and implementing responsive web design
- Technologies used: **React, JavaScript, CSS, AWS Technologies (DynamoDB, Cognito, Lambda, etc.), Python**

PROJECTS

Projects below completed independently. More details at bryceschumacher.me

DateSpot (Full-Stack)

- Integrated Google Maps API to find locations of common places to go out to on a date
- Implemented login system with a relational database, allowing CRUD operations for users to edit to-do list items
- Technologies used: **JavaScript, MySQLi, PHP, Apache, API, HTML, CSS**

miniGit

- Created Version Control software, allowing the user to checkout, add, commit files, etc.
- Tinkered with different data structures and algorithms to optimize time and space complexity
- Technologies used: **C++, Object-Oriented Design, Algorithms, Data Structures**

Algorithmic Trading

- Performed batch API call to IEX Cloud API for financial data
- Implemented various machine learning models to predict price fluctuations for S&P 500 stocks
- Used python libraries to visualize data and present findings in a useful, non-technical format
- Technologies used: **Python, API, Numpy, Pandas, Machine Learning (scikit)**

AWARDS/LEADERSHIP EXPERIENCE

Co-Founder, President of CU Quantum Computing Club
Lead Software Developer of Blueprint Boulder Club
Engineering Honors Program and **Tau Beta Pi Honor Society**
Sewall Esteemed Scholarship and **Engineering Merit Scholarship**

SKILLS

Languages (in descending order of proficiency): C++, JavaScript, Python, HTML, CSS, PHP, SQL

Other: Node, React, AWS, Linux, Unix, Windows, Machine Learning, Git, Debugging, Jira, Docker, Agile