Thomas Kade

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Education

University of Richmond Expected Graduation: May 2023

- B.S. in Computer Science and B.S. in Physics
- Current Cumulative GPA: 3.52
- Dean's List: Fall 2019
- Relevant Coursework: Algorithms, Data Structures, Music Informatics, Discrete Structures, Software Systems Development, Computer Organization, Database Systems, Linear Algebra, Calculus III

Technical Skills

Languages: C++, C#, Python, Java, Perl, Swift, HTML, XML, CSS, Shell Script
Developer Systems: Azure, Kubernetes, Docker, Git, Linux, Unix Terminal, LaTeX

Experience

Machine Learning Engineering Intern | *Python, Azure, SQL, Docker* June 2022 – August 2022
CarMax *Richmond, VA*

- Productionized machine learning model used in car recommendations system
- Designed web application for testing machine learning models used for personalization
- Implemented GUI to edit visitor-click data in Azure Cosmos databases in real-time

Software Engineering Intern | *Python, Linux, Perl* May 2021 – August 2021
CommScope, Inc. *Suwanee, GA*

- Improved functionality of a Command Line Interface by automating frequently-used processes
- Used Grep and Sed to identify issues, while using Python, Perl, and Shell Script to create solutions
- Worked to create a diverse test suite for new features

Computer Science Research Assistant | *C++, XML* May 2020 – July 2020
University of Richmond *Richmond, VA*

- Extended a 2D robotic motion planning program to work in three dimensions over terrains
- Developed probabilistic roadmap algorithms as a way to plan robot paths in C++
- Used XML to create a variety of testing scenarios to score each method based on speed and accuracy

Projects

Machine Learning in Condensed Matter Physics | *Python* August 2022 – Present
University of Richmond *Richmond, VA*

- Researched possible materials to be used as semiconductors in high energy astronomy
- Identified stable compounds using a random forest model and symbolic regression
- Communicated results to research teams at multiple post-secondary institutions

President of Richmond Game Development Club | *C#, Unity* November 2019 – Present
University of Richmond *Richmond, VA*

- Created games using the Unity physics engine
- Lead discussions towards the creation of new ideas for creative games
- Directed officers in recruitment of new members and planning of weekly meetings

Awards

3rd Place in HackDay 2020 | *Swift* May 2020
International Information Technology University *Almaty, Kazakhstan*

- Worked with a partner to design an iOS application using Swift
- Helped managers stay knowledgable of all of the store's transactions
- Implemented an easy-to-use interface for employees

Hobbies

Powerlifting, tennis, guitar, rugby