Toby Frick

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EDUCATION

Grinnell College – Bachelor of Arts in Computer Science, May 2024 *GPA 3.8*

Relevant Coursework: Software Development and Design, Computer Organization and Architecture, Computer Vision, Text Mining for Artificial Intelligence, Analysis of Algorithms, Computer Networks, Linear Algebra

Technical Experience

Software Developer Intern – Epic Systems *June 2023 – August 2023*
iOS Development, Rapid Iterative Design, MVC Architecture
- Developed iOS application which presents scheduling data to hospital surgeons in an interactive calendar UI with custom month, week, and day views increasing operating room utilization by 20%
  - Soon to be implemented in hospitals worldwide
- Gained proficiency in user-centered rapid iterative design alongside a UX team

Full Stack E-Commerce Website
Full Stack Web Development, TypeScript, Python, Django, React, RESTful API
- Developing an online storefront using a Django backend and React frontend
- Leveraging Django's REST framework for efficient data transfer across the software stack
- Implemented with TypeScript to ensure a more maintainable codebase

Chess Board Piece Location and Identification
Machine Learning, Transfer Learning, Image Homography, Correlation Filtering
- Employed computer vision techniques to identify board position in chess images
- Converted linear algebra homography equations to perform an affine transformation on chess board images to obtain 2-d board coordinates
- Utilized transfer learning to adapt a pretrained CNN for chess piece classification

Hold 'Em Helper Android Application
App Development, Android Development
- Android app delivering hand statistics to beginner poker players to develop hand strength intuition
- Fully deployed and available for download on the Google Play Store

OTHER EXPERIENCE

Computer Science Tutor and Mentor – Grinnell College *February 2022 – Present*
Technical Communication, Data Structures and Algorithms
- Built strong technical communication skills intuitively explaining complex programming concepts
- Utilized guided questioning strategies to enhance student learning outcomes as measured by my being awarded the most positively reviewed computer science tutor in 2022

Lifeguard Instructor – Grinnell College *August 2022 – Present*
Red Cross Lifeguard Instructor Certification, Leadership, Teaching and Training
- Instructs CPR and Lifeguard courses through the Red Cross responsible for ensuring the training of competent lifeguards to ensure best practices and a rapid response in emergency situations

SKILLS

Languages, Software, & Methodologies: TypeScript, Javascript,HTML/CSS, Swift, Python, Java
Software & Methodologies: React, Django, Xcode, Android Studio, Git, Agile Development, MVC Design
Certifications: Microsoft Power Apps through Udemy
Extracurricular: Division 3 Diver for Grinnell College Men's Swim and Dive Team, PADI Certified Scuba Diver, French Horn Player