Kevin Williams

✉ willik39@tcnj.edu 📞 9733362503 📍 10 Manchester Place, Newark, New Jersey 🔗 willik39 🔗 KvnWill

EDUCATION

The College Of New Jersey (TCNJ)   May 2022
Bachelor of Science Computer Science
GPA: 3.34/4.0, Deans List (4/6 semesters)

EMPLOYMENT

Lehigh University Research; *SSS-RP Lab*; Modular and Elastic Data Structures   May 2020 - Current
- Utilized an Optimistic Skiplist implementation to develop a framework that partitions sequential data structures for fast, concurrent access
- Established the Insert, Delete, Retrieval and Ranged operations for the framework using various p-thread locking and validation techniques
- Integrated a Single Writer Multiple Reader locking implementation to control and maintain the state of the structure
- Designed heuristic based struccture modification algorithms to maintain consistent and efficient opperation time complexity through multiple workloads
- Integrated the framework into the Syncrobench benchmarking tool to run testing and create performance models of the system
- Tools used: C, Thread library, Syncrobench (Testing and Benchmark Tool), Git

The College of New Jersey; *Summer Scholar Mini-Course Instructor*; EOF Department   Aug. 2021 - Aug. 2021
- Co-Led a two week long drone course for incoming EOF computer science freshmen
- Designed and co-taught an entry level python course to familiarize students with basic programming teqniques and understanding
- Created a Tello and CV2 library tutorial to help students interact with and control tello drones with image processing
- Aided students implementing and debugging proceedral drone programming with simple object and color detection
- Tools Used: Pyton, TelloEDU Drone, CV2, Tello

The College of New Jersey; *Tutoring Center*; TCNJ   Aug. 2019 - May 2021
- Tutoring peers in various college level computer science courses to help ensure that they understand key concepts within the Major and master languages like Java, C and C++ while also developing strong problem solving with datastructures and algorithms

PROJECTS

Aslan   May 2021 - Current
- Working in a team of 5 to build a full stack management and registration system for TCNJ's hackathon
- Implmented a custom user grouping and permission system to restrict access and ensure data security
- Developed a QR code checkin system for the event to reduce congestion and provide a better user expeience
- Developed the CRUD functionality for the core site opperations
- Tools used: Django, Python, HTML/CSS, Javascript, PostgreSQL, Git

Tutoring center Assistant for Centralized Operations   Dec. 2019 - May 2021
- Developed full stack web application to manage the TCNJ tutoring center operations
- Designed and implemented a user hierarchy system that manages page permissions utilizing Django Middleware and Embedded User Grouping System to meet the centers administration needs
- Designed an SQL database scheme to accurately represent and fulfill the requirements of the centers operations
- Designed, implemented and integrated a criteria based matching algorithm to schedule tutoring sessions quickly and efficiently
- Tools Used: Django, Python, HTML, Bootstrap, JavaScript, MariaDB, Git

SRHUB Visual Search Module   Feb. 2020 - May 2020
- Worked with a team to develop a full stack web application module for the New Jersey Sustainability Reporting Hub to enhance interactivity and retention of the site
- Handled database design, development and optimization for the application by ensuring all tables were fully normalized and queries were efficient
- Integrated the back-end flask application with the front-end D3.JS modules and Bootstrap stylings to display the data in both a dynamically generated pie chart and interactive map search
- Tools used: Flask, Python, Psycopg2, HTML, Bootstrap, D3.JS, PostgreSQL, Unix, Git

ACTIVITIES

Association for Computing Machinery E-board, *President*   Aug. 2020 - Current
- Manage the TCNJ ACM Chapter, leading a team of 5 eboard members

Google Student Developers Club E-Board, *Events Team Leaders*   Aug. 2020 - Aug. 2021
- Help coordinate and plan the events for the Club