ERICK S. PAIRAULT

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WORK EXPERIENCE

Teaching Assistant for Voiland College of Engineering & Architecture
Instructed students on elements of Programming in C/C++ using data structures to help them better understand the class materials and programming assignments.
Taught a Programming Lab for students and hosted ~3hr Office Hours to help students debug/work on code each week.

Cyber Security Group | Treasurer
Organizing financial responsibilities for club events and sponsors.
Aiding in hosting and reaching students to participate and learn more about Cyber Security and what the industry entails.

Association for Computing Machinery | Treasurer
Engage in various Computer Science activities; we work on challenging coding problems, build soft skills through workshops, or listen to speakers from various companies.

Linux Users Group
Learned useful information on a weekly basis from presenters promoting the use of Linux and Open-Source software to improve efficiency and expand skills.

PROJECTS

- **Projects Dragon Dash** • Developed a complete game using C++, leveraging a binary search tree to efficiently store and retrieve player scores. • Designed GUI using SFML, including menus, settings, and high score tracking. • Implemented realistic physics with fine-tuned equations for an optimal gaming experience.
- **Home Court** • Built the backend pipeline connecting Firestore DB with user profiles for seamless data integration. • Created and tested user-friendly GUIs with Flutter and Dart for enhanced user experience. • Developed interactive page designs using Figma, focusing on intuitive navigation and streamlined functionality.
- **Yelp Analyzer** • Created a Python application integrating MongoDB and PySpark for data analysis and visualization. • Executed SQL queries to manage and analyze millions of business reviews efficiently. • Presented data insights through dynamic charts to highlight business performance trends.

EDUCATION

Bachelor of Science, Computer Science; Minor in Physics
Washington State University, Pullman, WA

Achievements & Awards
- First Place, Regional Cybersecurity Competition - Gonzaga University, Spokane, WA
- Winner, Palouse Code-Off - WSU v. UI Regional Coding Competition, WSU Pullman, WA

Essential Courses
- Professional Skills in Computer Engineering: Developed an Excel program using Visual Studio and C# focusing on Sprints, Testing, and software development fundamentals.
- Machine Learning: Learned various training methods and algorithms such as supervised, unsupervised, and reinforcement learning.
- Computer Networks and Security: Practiced various concepts involving network sockets, networking protocols, firewalls, and encryption.
- Data Science: Used R to collect, clean and analyze data with statistical modelsnd charts.
- Database Systems: Created multiple applications to practice storing and querying data using SQL, Postgres, and MongoDB.

SKILLS

- Results-driven
- Technical innovation
- Highly skilled in software development and full-stack application design
- Extensive experience in data analysis and visualization
- Proficient in programming languages: C, C++, Java, Python, C#, Dart
- Proficient in frameworks: React.js, Node.js, Flask, Flutter
- Expertise in databases: Postgres SQL, MongoDB, Firebase
- Experienced in development tools: Visual Studio, Git
- Strategic project management with proven leadership
- Skilled in collaboration and teaching in technical environments