ANGEL CRISTIAN **BERNAL VARGAS**

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PROFESSIONAL PROFILE

I am a Software and Networks Engineering student with a focus on Full Stack web development and network management. My web development experience includes the efficient implementation of controllers, with a strong emphasis on the identification, handling, and resolution of errors using HTTP status codes, which allows me to optimize the robustness and efficiency of the systems I develop. In the area of networking, I specialize in port configuration and IP assignment in complex environments, aiming to solve problems swiftly while continuously improving the security and performance of both applications and network infrastructures.

PROFESSIONAL EXPERIENCE

Technical Support Social Service 04/09/2024 - 10/09/2024

Centro SICT

- Configured networks, assigned, and troubleshot IP addresses in both IPv4 and IPv6 environments.
- Identified and resolved web page issues using HTTP status codes and console tools.
- Installed and configured applications and browsers compatible with servers that have network restriction policies based on ACLs.
- Efficiently managed cabling for multi-connection to switches.
- Resolved issues in operating systems and hardware, improving system stability and performance.
- Performed preventive and corrective maintenance on equipment, ensuring operational continuity.
- Created and managed data backups to ensure recovery in case of failures.
- Installed Linux and Windows operating systems and managed system images.
- Installed and corrected printer and scanner drivers.

EDUCATION

- **Software and Network Engineering** - Universidad Tecnológica de México
  January 2020 - December 2024
- **Diploma in Software Development** - Universidad Tecnológica de México
  Duration: 84 hours
- **Diploma in Web Analytics** - Universidad Tecnológica de México
  Duration: 84 hours
- **Diploma in Computational Technology** - Universidad Tecnológica de México
  Duration: 84 hours

SKILLS

- Problem Solving
- Code Debugging
- Error Interpretation
- Critical and Analytical Thinking
- Time Management and Organization
- Project Management
- Task Prioritization
- Continuous Learning
- Teamwork

LANGUAGES

- Spanish: Native
- English: Intermediate-Advanced

TECHNICAL SKILLS

- Web Development

  TypeScript, JavaScript, Node.js, Express, HTML, CSS, React, Next.js, MongoDB, Convex, Clerk, Tailwind

- Networking

  LAN Network Configuration and Management

FEATURED PROJECTS

Web Development

- Colab Web (Full Stack)

Development of a collaborative application that enables file sharing and management within an organization. The application supports the creation and administration of organizations, where users can join as members or be assigned as administrators with special permissions. The functionality includes an integrated organizational chat system that facilitates seamless communication and real-time file exchange. Additionally, the application features a notes section for internal documentation and an overview that displays important announcements—managed exclusively by administrators—and the most recently shared files. The architecture ensures efficient management of permissions and roles, guaranteeing the security and privacy of information shared within the organization.

- Cosmic Blog (Full Stack)

Cosmic Blog allows authenticated users to efficiently create, edit, and manage content. The application features a dynamic homepage that showcases the latest posts with advanced search and filtering functionality by title and category. Upon accessing a post, its full content is displayed along with a comments section, facilitating user interaction and feedback. Additionally, a recommendation component is implemented to display related posts, optimizing user retention and content exploration. The application's architecture is designed to be scalable, with a focus on modularity and security, ensuring data integrity and the authenticity of interactions.

Networking

- Interconnection of LAN Networks Using OSPF 15 Multi-area and ACL

Routers and PCs were configured by assigning IP addresses, subnet masks, and gateways. The OSPF 15 protocol was enabled on the routers for dynamic routing management. Additionally, both standard and extended ACLs were implemented to control communication within the network: one blocks the network 166.16.166.0 from subnet 20.30.40.0, another prevents Laptop 4 from communicating with area 1, a third one restricts communication between Laptop 18 and Laptop 16, another blocks traffic from subnet 10.20.30.0 to subnet 80.80.1.0, and the last one prevents communication between Laptop 5 and Laptop 6. These ACLs were applied on the respective output interface on the router to regulate traffic and ensure network security.