Owen Sheed

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EDUCATION

Elon University — Elon, NC
Bachelor of Science in Computer Science, Minor in Data Analytics — *Aug. 2020 – May 2025*

EXPERIENCE

Software Development Intern — June 2023 – July 2023
Equiniti Trust Company — *New York, NY*

- Developed a REST API in ASP.NET Core for user data, integrating JWT authentication, log4net logging, and async endpoints; stress-tested using a multithreaded Python script.
- Constructed a tool that parsed log files to produce detailed Excel reports, with features like error-specific reporting and SMTP-driven email delivery.
- Acquired in-depth proficiency in C# and .NET, focusing on advanced features like lambda expressions, asynchronous functions, and secure data handling techniques.
- Strengthened abilities in effective communication, rapid learning, and problem-solving, coupled with insights into the finance industry, particularly regarding funds and transfer agents.

Project Manager — March 2022 – July 2022
EJB Investments — *Miami, FL*

- Played a pivotal role in the successful release of a combined art and utility NFT collection, securing a 5-minute sellout, 30 ETH in volume, and 1.2k verified holders.
- Conducted comprehensive investment analyses, fostering relationships with potential investors, thereby facilitating funding for multiple investment ventures.
- Personally designed and built high-performance computers tailored for demanding applications, resulting in over a 151% speed enhancement, accelerating mission-critical processes.
- Oversaw a marketing team that grew a Twitter audience to 70k followers. Led an NFT sticker campaign, distributing branded stickers to ambassadors in major cities, sparking widespread social media engagement.

PROJECTS

Open Data Service | Go, Chi Router, PostgreSQL, Logrus — February 2023 – Present

- Backend development for service, focusing on the "Applications" module, leveraging the Chi router and PostgreSQL for efficient data handling.
- Designed key CRUD operations for user applications, from registration to revocation.
- Enhanced error handling and logging using the Logrus library, ensuring system resilience and ease of debugging.
- Employed the Mockery library for rigorous testing, ensuring code reliability and robustness.

Protein Folding Simulation | C, Pthreads, Performance Tuning and Analysis — February 2023 – March 2023

- Developed a program to calculate the maximum number of H-H contacts in a given n-length protein, exhaustively walking every possible protein fold.
- Enhanced performance by multithreading with PThreads and aggressively optimizing base code such that each n-length protein only needs to score 3^{n-2} walks as opposed to the 4^{n-1} walks in the original.
- Achieved notable speed improvements: a 12-character protein previously took 132.98s, while the optimized parallel version completed in just 0.0269s. On average, the optimized parallel program decreased runtime by over 99%.
- Conducted comprehensive performance testing, utilizing python to write to Excel files for in-depth analysis and optimization metrics.

TECHNICAL SKILLS

Languages: Python, Java, C/C++/C#, Go, JS, HTML, CSS, SQL (Postgres, MySQL), Arm Assembly, LaTeX
Frameworks: .NET Framework, ASP.NET Core, Next.JS, Node.JS, OpenCL
Developer Tools: Git, Docker, VS Code, PyCharm, IntelliJ, Anaconda, TablePlus, Postman, VMWare
Libraries: pandas, NumPy, Pthreads, CUDA, MPI, Chi Router, Requests