How does it work?

A Slowloris DDoS attack is considered a distributed denial of service, and it can remain undetected by traditional intrusion detection systems by sending legitimate HTTP request packets at low request-per-second rates. Rather than large volumes or high rates of HTTP requests per second. Additionally, since the log file cannot be written until a request is completed, Slowloris can immobilize a server for periods of time without a single entry appearing in the log file to raise a red flag for anyone monitoring it.

https://www.akamai.com/glossary/what-is-a-slowloris-ddos-attack

Why is it unique compared to other high-bandwidth DDoS attacks? Slowloris attack is unique because it uses a low ammount of bandwidth. Instead aims to use up server resources with requests that seem slower than normal but otherwise mimic regular traffic. It falls in the category of attacks known as low and slow attacks. The targeted server will only have so many threads available to handle concurrent connections. Each server threat will attempt to stay alive while waiting for the slow request to complete which never occurs. When the server's maximum possible connections has been exceeded, each additional connection will not be answered and denial-of-service will occur.

https://www.akamai.com/glossary/what-is-a-slowloris-ddos-attack

https://www.cloudflare.com/learning/ddos/ddos-attack-tools/slowloris/

What are the effects of the attack?

Denial of service: Legitimate users cannot access the server once connections are exhausted. Logs may not show clear signs. The server may appear alive but will not respond to most requests, creating a partial otage. Cpu, memoy, and connection limits can all be stressed.

https://www.akamai.com/glossary/what-is-a-slowloris-ddos-attack

How can you mitigate or prevent the effects?

According to cloudflare page. There would be couple of things. These are excamble attack surface reduction. That means limiting attack surface exposure can help minimize the effect of a DDos attack.

And anycast network diffusion so helps increase the surface area of an organization’s network. so that it can more easily absorb volumetric traffic spikes

https://www.cloudflare.com/learning/ddos/how-to-prevent-ddos-attacks/

Are there any notable instances of this style of attack being performed?

According to wikipedia there is Apache webserver were vulnerable to a denial-of-service attack called Slowloris. That creates many simultaneous partially completed requests and the server’s pool of available connections.

https://en.wikipedia.org/wiki/Apache_HTTP_Server