



## Hiwi-Stellen für Emmy-Noether Nachwuchsgruppe

### Motivation

Der Lehrstuhl sucht ab sofort mehrere Hiwis zur Mitarbeit an GUNet, GNU's Peer-to-Peer Netzwerk und verwandten Projekten. Das Aufgabenspektrum reicht von der Entwicklung von Peer-to-Peer Anwendungeng zur Gestaltung von Webseiten und Unterstützung der Mitarbeiter an anderen notwendigen Stellen. Abhängig von den Projekten könnten evtl. SEP-, Bachelor-, Master- oder Diplomarbeiten entwickelt werden.

### GNUet



GNUet is a framework for secure peer-to-peer networking that does not use any centralized or otherwise trusted services. A first service implemented on top of the networking layer allows anonymous censorship-resistant file-sharing. Anonymity is provided by making messages originating from a peer indistinguishable from messages that the peer is routing. All peers act as routers and use link-encrypted connections with stable bandwidth utilization to communicate with each other. GNUet uses a simple, excess-based economic model to allocate resources. Peers in GNUet monitor each others behavior with respect to resource usage; peers that contribute to the network are rewarded with better service.

We are currently working on developing the next generation GNUet framework, expanding the set of available applications, improving performance and enabling the development of GNUet components in languages other than C/C++.

### libmicrohttpd

GNU libmicrohttpd is a small C library for embedding webservers in larger applications. libmicrohttpd was started because we needed an easy way to add a concurrent HTTP server to other projects. Existing alternatives were either non-free, not reentrant, standalone, of terrible code quality or a combination thereof.

Current development goals include improving SSL support and improving performance using epoll/kqueue where available.

### Voraussetzungen

Vorteilhaft sind Kenntnisse in:

- C, C++, C# und/oder Java
- HTML, CSS, PHP und Drupal
- der Englischen Sprache
- Freier Software & GNU
- Lust an spannenden technischen Innovationen mitzuwirken

