

# CMSC 711 - HOMEWORK 4

Name: \_\_\_\_\_

Due: Feb 27

## BGP

1. What is the AS number of UMD?

Hint: `whois -h whois.ra.net`

2. Download `http://archive.routeviews.org/oix-route-views/'date+\%Y.\%m'/oix-full-snapshot-latest.dat.bz2` to /tmp or a temporary directory on your machine. Delete that file when done because it can be pretty large. The date syntax specifies the current month.

What are the numbers of the two ASes that are direct providers of UMD?

Hint: `bzcat oix*.bz2 | grep 'xxx i' | sed ...`

3. What are the names of these two networks? Hint: use google – they're not in the usual databases.

4. What is the ASN and name (Hint: `whois -h whois.ra.net ASxxx`) of the provider of the lesser (numerically) of the two?

5. What are the ASNs and names (Hint: `whois -h whois.ra.net ASxxx`) of the provider of the greater (numerically) of the two?

6. List the delegation chain of DNS servers for `www.cs.umd.edu` and how you obtained it.

Hint1: `man dig`

Hint2: Do not use a `128.8.128.*` machine

Hint3: It is enough if you list one server per delegation level

7. What is the main hostname associated with the IP address `128.8.126.104`? (Hint: `man dig`)