# CONOR STUART ROE

## BACKEND WEB & NLP ENGINEER

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Experienced web developer and architect, data analyst, and pipelining pro. Academic background in computational linguistics, programming language theory, cryptography, and scientific computing. Enthusiastic polyglot of natural and programming languages.

## EXPERIENCE

### ProPublica — 2018
**Audience Analytics**

- Zero to rollout on a Slack chatbot which aggregates from Google Analytics, social media, and our CMS and allows audience team members to build custom lists and graphs on the fly

### The Kyrium Group — 2018 - Present
**Lead Developer**

- Created all technical elements of My Fleet Sheets, a proprietary email and data management service for private aviation
- Handled a variety of other freelance technical projects, using tools ranging from Scrapy to Rails to EC2

### The Vanguard Group — 2018
**Automated Telephony & Contact Analytics**

- Refactored predictive analytics scripting for calling and mail
- Created a custom VXML parser and interpreter on JSP
- Helped pilot internal use of MEAN stack for app development

### Haverford Digital Scholarship — 2017 - Present
**Developer on the Ticha Project**

- Contributing developer for digital archive of Zapotec language documents dating to colonial period
- Pipelining and integration of data from multiple academic and research sources into user-friendly web resource
- Develop new research and accessibility oriented tools

### Ivy.ai — 2017
**NLU Research and Engineer**

- Lead initiative within small startup to conduct original research and testing of NLU techniques for chatbot
- Drafted research memos and built functioning prototypes of web scrapers, natural language understanding utilities, and a graph-based semantic knowledge base

## EDUCATION

**Bachelors of Arts and Science - Linguistics and Computer Science**

**Haverford College '20**
**GPA: 3.92**

## TOOLS & PLATFORMS

**Python, Java, Scala, C++, Node.js**
**HTML, CSS, JQuery, Bootstrap, Fontawesome**
**Django, Angular, React, Rails, Express**
**PostgreSQL, MongoDB**
**NumPy, Pandas, Tensorflow, Theano**
**AWS (EC2, ECS, S3), DigitalOcean, Heroku**
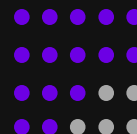**Ubuntu, Windows**
**Git • OpenSSL • Nginx**

## LANGUAGES

| Language | Proficiency |
| --- | --- |
| English | ● ● ● ● ● |
| Dutch | ● ● ● ● ● |
| Mandarin | ● ● ● ○ ○ |
| Russian | ● ● ○ ○ ○ |

## SKILLS

- Scientific computing
- Formal linguistics (semantic modeling, formal syntax)
- Natural language processing and modeling
- Data management and pipelining
- Backend web architecture
- Formal mathematics (number theory, computational theory, abstract algebra)
- Network security