Eric Thomas Schneider

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Education

University of North Carolina at Chapel Hill Expected Graduation: 2024
Major: Computer Science (MS).

University of North Carolina at Chapel Hill Expected Graduation: May 2023
Majors: Computer Science (BS), Mathematics (BS).
GPA: 3.595/4

Relevant Courses

- **Complete** (computer science): Foundation of Programming, Data Structures, Systems Fundamentals, Peer Tutoring, Computer Organization, Modern Web Programming, Models of Languages and Computation, Files and Databases, Compilers, Programming Language Concepts, Algorithms and Analysis, Operating Systems, Operating System Implementation (grad), Digital Logic.
- **Complete** (mathematics/physical sciences): Discrete Mathematics, Differential Equations (with lab), Linear Algebra, Mathematical Methods for the Sciences (with lab), Combinatorics, Probability, Real Analysis, Numerical Analysis, Advanced Linear Algebra, Mechanics and Relativity (with lab), Geology (with lab).
- **In progress** (spring 2023): Operating Systems (grad), Software Engineering Laboratory.

Skills and Interests

- Software development (application, systems, languages, web, data, telco), hardware, wikis, peer tutoring.
- **Strong**: Java, C. **Basic**: Ruby, Rust, JavaScript, Groovy, HTML, CSS, Assembly (MIPS, x86), SQL (PostgreSQL, SQLite, MariaDB). **Some**: Lisp, Python, Verilog, Bash, Lua, C#, MATLAB, Mathematica, TypeScript, C++.
- **Strong**: MediaWiki. **Basic**: Git, Linux, Flink, Protocol Buffers, jQuery, Gradle, JUnit, Bulma, Heroku. **Some**: Bazel, Docker, Kubernetes, Kafka, Kafka Streams, Node.js, Vue.js, Nuxt.js, express.js, React.js, Make.
- Mathematics (applied, calculus, algebra, proofs).
- Running (7 marathons), weight training, gaming, geography, international affairs, Spanish (basic).

Experience

VMware
Software Developer Intern for VMware Telco Cloud Platform RAN May 2022-August 2022

- Separate complex Flink-based streaker microservice into session collator and KPI composer microservice to increase product reliability, decrease complexity, and support VMware Centralized RIC, a non-real time RAN Intelligence Controller.

Software Developer Intern for VMware Uhana May 2021-August 2021

- Migrated real-time streaming decoder microservice to Flink from Kafka Streams in Java, used to decode raw data from Kafka into protobuffers, processing >1 million messages/second in production.

UNC Computer Science Department
Undergraduate Teaching Assistant Aug 2020-present

- Tutor students in Systems Fundamentals (COMP 211) for 4 semesters and Operating Systems (COMP 530) for 1 semester about C programming and systems concepts (such as data representation, memory management, virtual memory, debugging).
- Manage and contribute towards labs and associated autograders, using Bash, Python, and C.
- Grade classwork, respond to student questions on Piazza, CampusWire, and GroupMe.
- Collaborated to create a website to archive course material, using HTML, CSS and Bulma.

Official FTB Wiki
Administrator/Editor July 2014-present

- Create and modify templates and other wiki components, using wikitext, Lua, JavaScript, and CSS.
- Develop tools and scripts to deal with various wiki tasks, usually in Ruby, occasionally in Java or Groovy.
- Refine wiki guidelines and guides, manage translation projects, the wiki community and events.
- Write/edit content (>55,000 edits) using MediaWiki, often analyzing Java (or Scala/Kotlin) code to do so.

Notable Projects

- **JOS** Implemented portions of operating system in C/x86 Assembly
- **MagnumVM** Created process virtual machine in Rust, winning 1st in small hackathon
- **Psil** Create medium-sized Lisp-like programming language in Rust
- **miniJava** Created compiler for subset of Java in Java
- **Tar Heel Calendar** Created backend for calendar website using express.js and MariaDB
- **Personal website** Created website, originally in plain HTML/CSS/JS, later Vue/TypeScript
- **Long Fall Boots** Port/maintain small popular Minecraft mod (~16m downloads) in Java
- **ATT-9001** Created tool for scraping tile translations for wiki in Ruby
- **ESAEBSAD** Created IRC/Discord bots used for automated wiki tasks in Ruby
- **Flaxbeard's Steam Power** Contributed to popular Minecraft mod (~1m downloads) in Java
- **Nuclear Control 2** Ported/maintained popular Minecraft mod (~6m downloads) in Java